EMERGENCY RESPONSE REPORT

FOR

DOW CHEMICAL - B1700 PHENOL
2301 N. BRAZOSPORT BLVD
FREEPORT, BRAZORIA COUNTY, TEXAS

Prepared for

U.S. Environmental Protection Agency Region 6
Will LaBombard, Project Officer
1445 Ross Avenue
Dallas, Texas 75202

Contract No. EP-W-06-042
TDD No. 1/WESTON-042-14-007
Technical Direction Document No. TO-0001-42-14-07
WESTON W.O. No. 20406.012.001.0861.01
NRC No. 1075337
CERCLIS No. N/A
FPN: N/A
EPA OSC: Adam Adams
START-3 PTL: Thomas Walzer

Submitted by

Weston Solutions, Inc.
Cecilia H. Shappee, P.E., Program Manager
5599 San Felipe, Suite 700
Houston, Texas 77056
(713) 985-6600

01 July 2014

PROJECT SUMMARY

This final report describes the U.S. Environmental Protection Agency (EPA) emergency response actions at the Dow Chemical (Dow) B1700 Phenol facility located at 2301 N. Brazosport Boulevard in Freeport, Brazoria County, Texas. The detailed report follows this page, and all attachments are provided as separate portable document format (PDF) files.

On 28 February 2014 at 0512 hours, a Dow representative notified the National Response Center (NRC Report No. 1075337) of the release of 1,000 pounds of phenol into the Plant B canal system at the Dow facility in Freeport, Texas. Later, the estimated amount released was increased to 46,500 pounds of phenol. The pumps at the outlet of the Plant B canal system were shut down to prevent phenol-impacted waters in the Plant B canal system from being pumped into Outfall 003 that discharges directly to the Brazos River. In response to the report, the NRC notified the EPA Region 6 Prevention and Response Branch (PRB) of the release. At 2050 hours on 28 February 2014, EPA-PRB activated the EPA Region 6 Superfund Technical Assessment and Response Team (START-3) contractor, Weston Solutions, Inc. (WESTON®), to respond to the incident. The EPA team (WESTON and EPA) mobilized to the incident location on 01 March 2014, met with Dow representatives, assessed the incident and response efforts, and began documenting response activities in coordination with the United States Coast Guard (USCG), the Texas Commission on Environmental Quality (TCEQ), and Dow. The EPA team collected facts regarding the release and compiled written and photographic documentation of the incident and clean-up activities. On 07 March 2014, at 1600 hours, after the threat to the Brazos River was mitigated, the EPA team demobilized from the incident location at the direction of the EPA On-Scene Coordinator (OSC).

This final report was prepared under Contract No. EP-W-06-042 and Technical Direction Document (TDD) 1/WESTON-042-14-007 for EPA Region 6. The EPA OSC was Adam Adams, and the START-3 Project Team Leader (PTL) was Thomas Walzer.

☐ The EPA Task Monitor did not provide final approval of this report prior to the completion date of the work assignment. Therefore, Weston Solutions, Inc. has submitted this report absent the Task Monitor's approval.

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1. INTRODUCTION

On 28 February 2014 at 0512 hours, a Dow Chemical (Dow) representative notified the National Response Center (NRC Report No. 1075337 - Attachment E) of the release of 1,000 pounds of phenol from a 2-inch pipe in their facility, Plant B, located at 2301 N. Brazosport Boulevard, Freeport, Brazoria County, Texas. The phenol had impacted the Plant B canal system in the facility. The Plant B canal system receives stormwater runoff and seawater used for cooling water in operating units at the facility. Water in the Plant B canal system flows to the 403 Basin. The 403 Basin is then pumped into Outfall 003 that discharges directly into the Brazos River. Dow shut down the pumps to prevent phenol-impacted water from being pumped into Outfall 003. At 0516 hours on 28 February 2014, the NRC notified the EPA Region 6 Prevention and Response Branch (PRB) of the incident. In response to NRC, EPA-PRB activated the EPA Region 6 Superfund Technical Assessment and Response Team (START-3) contractor, Weston Solutions, Inc. (WESTON®), to respond to the incident. At 0800 hours on 01 March 2014, the EPA team arrived with EPA On-Scene Coordinator (OSC) Adam Adams at the facility and began compiling information regarding the incident and the actions taken by Dow personnel to prevent the release of phenol-impacted water to the Brazos River. Geographic coordinates of the release location are Latitude 28.992545º North, Longitude 95.395612º West. The coordinates were obtained by the EPA team using a Geospatial Information System (GIS) based on the World Geodetic System – 1984 (WGS-84). A Site Location Map and a Site Area Map are included in Attachment A and Attachment B, respectively.

2. BACKGROUND

At 0000 hours on 28 February 2014, a Dow employee noticed a phenol odor in Plant B and traced the odor to a 2-inch pipe in a rack near the northwest corner of Entrance Road and Benzene Road (Attachment C - Site Map). The initial report identified heat expansion as the cause of the failure of the pipe and the release of phenol (Attachment E - NRC Report No. 1075337). The NRC report stated that 1,000 pounds of phenol had been released. On 03 March 2014, the estimate of the release amount was revised to 46,500 pounds of phenol. The release impacted roadside ditches that are part of the Plant B canal system. The Plant B canal system receives seawater used for once-through cooling in the units and collects stormwater runoff in Plant B. The Plant B canal system flows to a basin (403 Basin) on the south side of the facility.

Under normal operating conditions, water is pumped out of the 403 Basin into Outfall 003 that discharges directly to the Brazos River. Dow shut down the 403 Basin pumps to prevent phenol-impacted water from reaching the Brazos River and constructed a dam to isolate the phenol-impacted portion of the Plant B canal system from the 403 Basin. In addition, Dow constructed a series of dams in the canal system to prevent phenol-impacted water from mixing with water not impacted by phenol.

3. ACTIONS TAKEN

At 0800 hours on 01 March 2014, the EPA team arrived at the incident location and visually assessed the incident. The EPA team met with Dow Incident Commander (IC), Mark Kuettel, who reported that no phenol had been discharged to the Brazos River, and the current goals were to construct dams to prevent the further spread of impacted water, identify locations to store the impacted water prior to treatment, route non-impacted cooling water to other outfalls for discharge, and identify a treatment strategy for the impacted water. Mr. Kuettel also stated it was estimated that 10,000,000 gallons of water was impacted and three storage options were being evaluated. These storage options included the Dorr Ponds on the facility property (10,000,000-gallon capacity), aboveground tanks in Plant A, and barges to be located at the docks on the Brazos River that services Plant B. The locations of the selected temporary phenol-impacted water storage areas are shown on the Site Area Map (Attachment B). The EPA team toured the Site to observe the clean-up activities and photograph the isolation dams (Attachment D - Digital Photographs). Representatives of the United States Coast Guard (USCG) and Texas Commission on Environmental Quality (TCEQ) were also at the facility command post and formed part of the Unified Incident Command.

The EPA team observed that Dow implemented several clean-up and containment strategies at the facility. Dow personnel prevented flow of water from non-impacted areas and cooling water from the entering phenol-impacted areas to retain storage capacity in the impacted areas and increases in the amount of impacted water. Some non-impacted water was retained in the Plant B canal system to use in the final flush of the canal system. Non-phenol-impacted water was removed from Dorr Ponds #3 and #4 to allow for their use as temporary storage of phenol-impacted water. The total storage capacity of the Dorr Ponds #3 and #4 was reported to be 10,000,000 gallons. Between 1630 hours on 02 March 2014 and 1630 hours on 03 March 2014,

Dow transferred 9,000,000 gallons of impacted water into the Dorr ponds, leaving 1,000,000 gallons of reserve capacity for rain events and other contingencies. Daily reports, updates, and analytical summaries provided by Dow are presented in Attachment G.

The B-47 Pond located on the south side of Plant B was identified as a fourth option for use as a temporary storage location. The B-47 Pond is an impoundment lined with clay, and it has a capacity of 44,000,000 gallons and an empty free board height of 19 feet. A plan for transferring impacted water to the B-47 Pond was submitted by Dow to the EPA, TCEQ, and USCG because the transfer required lines to cross Outfall 003 that directly discharges to the Brazos River.

Following USCG approval of the transfer plan, Dow initially installed two 12-inch lines to perform this transfer, and a third 12-inch line was added to increase the transfer rate of the impacted water. The sections of the transfer lines to the B-47 Pond that crossed the water in Outfall 003 were welded steel pipe mounted on an existing pipe bridge, and the sections of the transfer lines within the Plant B secondary containment consisted of 12-inch hoses. USCG was on-site to monitor commissioning of the transfer lines. Transfer to the B-47 Pond began at 0600 hours on 04 March 2014. As of 1330 hours on 06 March 2014, 7.25 feet of the 19 feet capacity had been used.

At 1100 hours on 07 March 2014, flushing operations were begun to move residual liquids in the Plant B canal system to recovery locations upstream of the final isolation dam located at the junction of the Plant B canal system and 403 Basin. Temporary dams associated with the Plant B canal system were removed to allow waters to flow through the impacted portions. Portions of the phenol-impacted area that could not be flushed using detained water were flushed using water from the plant firefighting system.

The EPA team was demobilized from the site on 07 March 2014 at 1600 hours by EPA OSC Adams following determination that the phenol-impacted water was contained and did not threaten the Brazos River.

In a summary report, Dow stated that on 08 March 2014, the last of the intermediate isolation dams in the Plant B canal system was removed, and the detained water was used to flush the phenol-impacted water to recovery locations for transfer to the B-47 Pond. The phenol

concentrations in the Plant B canal system were then measured at five locations and concentrations ranged between 0.5 parts per million (ppm) and 4.0 ppm, with Outfall 003 still having non-detectable concentrations of phenol. The transfer of impacted water to the B-47 pond was ceased because the phenol concentrations in the Plant B canal system were estimated by Dow as below levels that would cause an exceedence of the National Pollutant Discharge Elimination System (NPDES) permit. For Outfall 003, the NPDES permit limit for phenol is 0.5 ppm. Based on the concentrations of phenol measured at the five locations, the final isolation dam, which separated the Plant B canal system from the 403 Basin and the discharge point to Outfall 003, was removed and the facility was returned to normal operations.

Dow also reported that an estimated volume of approximately 20,000,000 gallons of phenol-impacted canal water was secured in temporary storage in Dorr Pond #3, Dorr Pond #4, and the B-47 Pond. Additionally, on 08 March 2014, at approximately 1530 hours, Dow reported that the phenol concentrations in the B-47 Pond ranged from 100 to 103 ppm and that these concentrations required treatment and/or disposal of the impacted water; however, no disposal operations were reported at this time.

This final report was prepared as part of the requirements of Technical Direction Document (TDD) No. 1/WESTON-042-14-007 and serves as documentation of work completed to date.

4. LIST OF ATTACHMENTS

A. Site Location Map

B. Site Area Map

C. Site Map

D. Digital Photographs

E. NRC Report No 1075337

F. Pollution Reports (POLREPs)

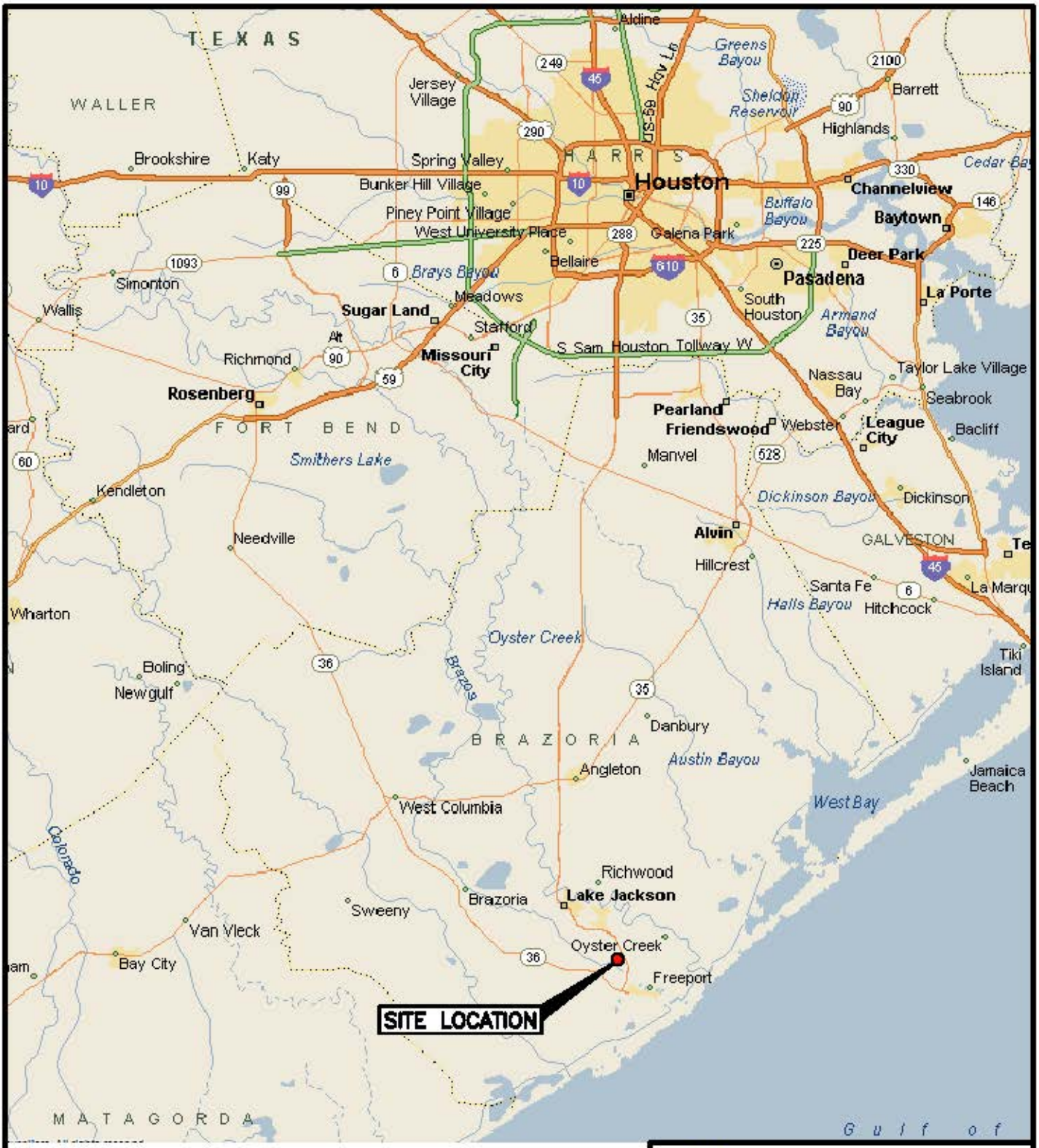
G. Dow Progress Reports and Analytical Summaries

H. Site Logbook

I. TDD No. 1/WESTON-042-14-007

ATTACHMENT A

SITE LOCATION MAP



US EPA REGION 6

ATTACHMENT A
SITE LOCATION MAP

DOW CHEMICAL – B1700 PHENOL
2301 N BRAZOSPORT BLVD
FREEPORT, BRAZORIA COUNTY, TEXAS

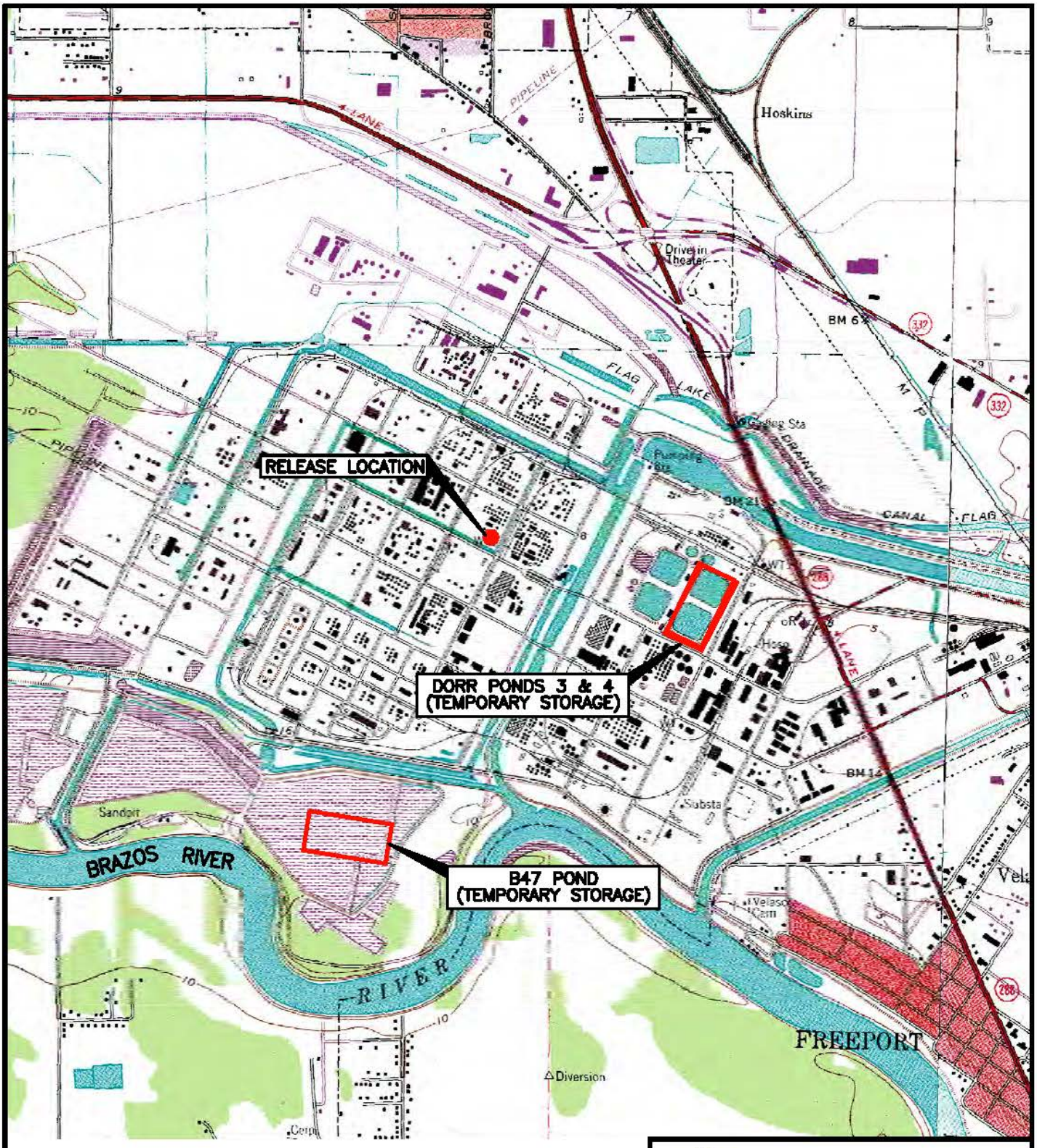
DATE:	W.O. #	SCALE:
APR 2014	20406.012.001.0861.01	NOT TO SCALE

SOURCE: MICROSOFT STREETS 2009.
TDD No.: 1/WESTON-042-14-007

H:\START III EPA\0861_Dow Chemical B1700Phenol\D414141215.dwg Apr 16, 2014 – 10:12a

ATTACHMENT B

SITE AREA MAP



SOURCE: USGS 7.5 MINUTE SERIES TOPOGRAPHIC, JONES CREEK, FREEPORT, LAKE JACKSON, & OYSTER CREEK, TEXAS (1974).
TDD No.: 1/WESTON-042-14-007

US EPA REGION 6

ATTACHMENT B
SITE AREA MAP

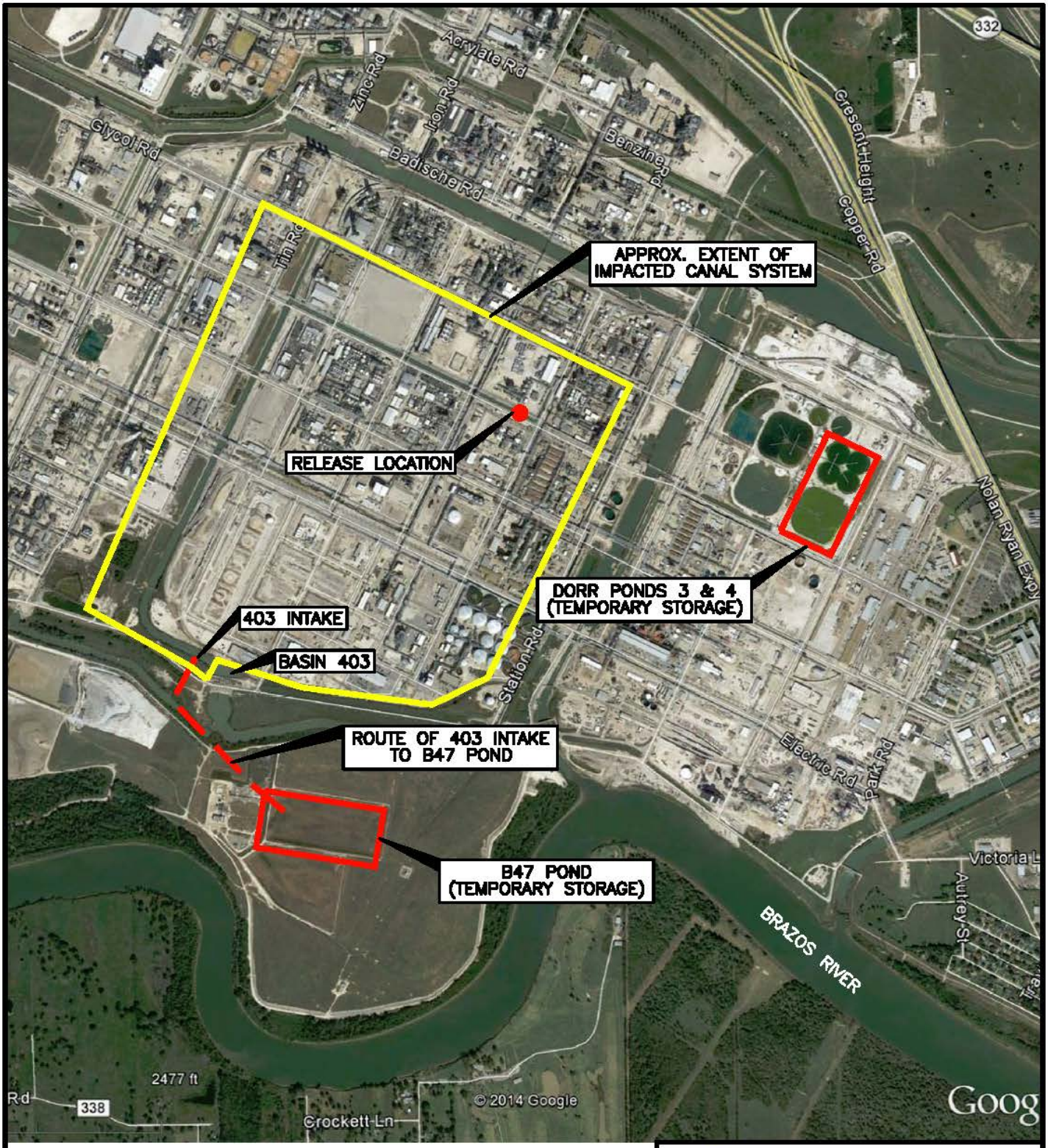
DOW CHEMICAL – B1700 PHENOL
2301 N BRAZOSPORT BLVD
FREEPORT, BRAZORIA COUNTY, TEXAS

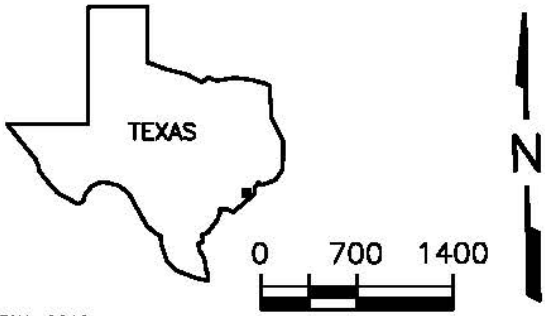
DATE:	W.O. #	SCALE:
APR 2014	20406.012.001.0861.01	AS SHOWN

H:\START III EPA\0861_Dow Chemical B1700Phenol\0414141309.dwg Jul 17, 2014 – 10:38a

ATTACHMENT C

SITE MAP





SOURCE: GOOGLE EARTH PRO AERIAL 2012.
TDD No.: 1/WESTON-042-14-007

US EPA REGION 6

ATTACHMENT C
SITE MAP

DOW CHEMICAL – B1700 PHENOL
2301 N BRAZOSPORT BLVD
FREEPORT, BRAZORIA COUNTY, TEXAS

DATE:	W.O. #	SCALE:
APR 2014	20406.012.001.0861.01	AS SHOWN

H:\START III EPA\0861_Dow Chemical B1700Phenol\0414141420.dwg Jul 17, 2014 – 1:51pm

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	N
Photo Name:	20140301_1026-IMG_0538.JPG
Date and Time:	Mar 1 2014 12:00AM
Latitude:	28.995519
Longitude:	-95.402838
Photographer:	Tom Walzer
Witness:	Adam Adams
Caption:	Fish kill in stormwater canal

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	E
Photo Name:	20140301_1039-IMG_0547.JPG
Date and Time:	Mar 1 2014 12:00AM
Latitude:	28.983749
Longitude:	-95.395591
Photographer:	Tom Walzer
Witness:	Adam Adams
Caption:	Brazos River

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	N
Photo Name:	20140301_1026-IMG_0540.JPG
Date and Time:	Mar 1 2014 12:00AM
Latitude:	28.995547
Longitude:	-95.402938
Photographer:	Tom Walzer
Witness:	Adam Adams
Caption:	Fish kill onsite near release site.

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
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Photo Name:	20140301_1022-IMG_0536.JPG
Date and Time:	Mar 1 2014 12:00AM
Latitude:	28.992649
Longitude:	-95.395997
Photographer:	Tom Walzer
Witness:	Adam Adams
Caption:	Release point and coffer dam containment.

EPA Response Manager Photo Report

SEARCH

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Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	S
Photo Name:	20140301_1040-IMG_0548.JPG
Date and Time:	Mar 1 2014 12:00AM
Latitude:	28.983552
Longitude:	-95.395186
Photographer:	Tom Walzer
Witness:	Adam Adams

Caption:

Continuous monitoring system on discharge to Brazos River

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	NE
Photo Name:	20140301_1034-IMG_0544.JPG
Date and Time:	Mar 1 2014 12:00AM
Latitude:	28.985180
Longitude:	-95.405472
Photographer:	Tom Walzer
Witness:	Adam Adams
Caption:	Inlet to 403 canal pump station

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	SE
Photo Name:	20140301_1035-IMG_0546.JPG
Date and Time:	Mar 1 2014 12:00AM
Latitude:	28.985194
Longitude:	-95.405547
Photographer:	Tom Walzer
Witness:	Adam Adams
Caption:	Outlet to Brazos River

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	N
Photo Name:	20140301_1034-IMG_0542 2.JPG
Date and Time:	Mar 1 2014 12:00AM
Latitude:	28.985316
Longitude:	-95.405800
Photographer:	Tom Walzer
Witness:	Adam Adams

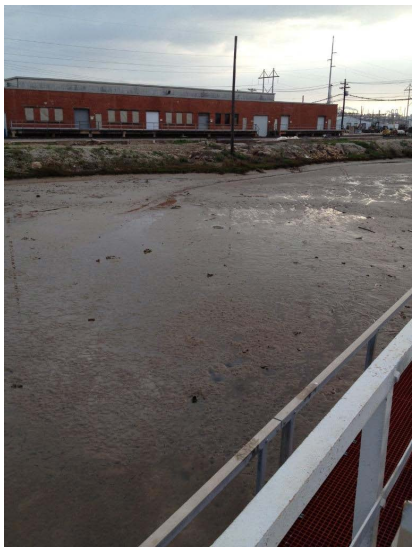
Caption:

Construction of dam to exclude contaminated water from pump station so pump station can be used for clean water

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY



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Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	NE
Photo Name:	20140302_DOW_photo.JPG
Date and Time:	Mar 2 2014 12:00AM
Latitude:	28.985314
Longitude:	-95.404937
Photographer:	Tom Walzer
Witness:	
Caption:	403 Pump Basin after dewatering

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	W
Photo Name:	20140303_1416_IMG_0554.JPG
Date and Time:	Mar 3 2014 12:00AM
Latitude:	28.982436
Longitude:	-95.403380
Photographer:	Tom Walzer
Witness:	Adam Adams

Caption:

12-inch hose being installed to transfer impacted water to Pond B

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	NW
Photo Name:	20140303_1416_IMG_0553.JPG
Date and Time:	Mar 3 2014 12:00AM
Latitude:	28.982675
Longitude:	-95.403375
Photographer:	Tom Walzer
Witness:	

Caption:
Operations installing hose for transfer to Pond B

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	SE
Photo Name:	20140303_1420_IMG_0556.JPG
Date and Time:	Mar 3 2014 12:00AM
Latitude:	28.982288
Longitude:	-95.403458
Photographer:	Tom Walzer
Witness:	Adam Adams
Caption:	Discharge hose into Pond B

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	NW
Photo Name:	20140303_1420_IMG_0557.JPG
Date and Time:	Mar 3 2014 12:00AM
Latitude:	28.982383
Longitude:	-95.403427
Photographer:	Tom Walzer
Witness:	Adam Adams

Caption:

Working to connect hose from Pond B to hose from 403 Basin

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	E
Photo Name:	20140304_1329-IMG_0566.JPG
Date and Time:	Mar 4 2014 12:00AM
Latitude:	28.985466
Longitude:	-95.405800
Photographer:	Tom Walzer
Witness:	

Caption:

Dam in Canal that separates the impacted water from the non-impacted water in the 403 basin

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	SE
Photo Name:	20140304_1332-IMG_0568.JPG
Date and Time:	Mar 4 2014 12:00AM
Latitude:	28.985236
Longitude:	-95.405669
Photographer:	Tom Walzer
Witness:	

Caption:
Hoses from 403 canal to B-47 Pond with secondary containment at flanges.

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	N
Photo Name:	20140304_1318-IMG_0565.JPG
Date and Time:	Mar 4 2014 12:00AM
Latitude:	28.982108
Longitude:	-95.403441
Photographer:	Tom Walzer
Witness:	

Caption:
B-47 B Pond - 2 hoses in place the discharge for a 3rd nose in place

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
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Photo Name:	20140304_1332_IMG_0569.JPG
Date and Time:	Mar 4 2014 12:00AM
Latitude:	28.985244
Longitude:	-95.405730
Photographer:	Tom Walzer
Witness:	
Caption:	Hoses to B-47 Pond

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	NW
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Date and Time:	Mar 4 2014 12:00AM
Latitude:	28.985630
Longitude:	-95.405747
Photographer:	Tom Walzer
Witness:	Adam Adams
Caption:	Pumps feeding the hoses to B-47 Pond

EPA Response Manager Photo Report

SEARCH

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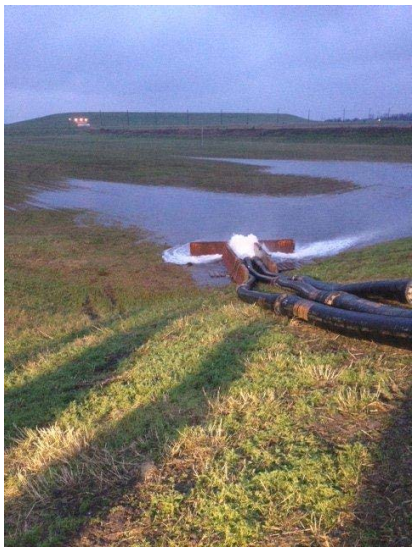

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Date and Time:	Mar 4 2014 12:00AM
Latitude:	28.985244
Longitude:	-95.405730
Photographer:	Tom Walzer
Witness:	Adam Adams
Caption:	
04 March 2014 0700 Beginning to fill B=47 B Pond	

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name: B1700
Event Name: DowChemical-B1700 Phenol
Photo Type: Overview
Direction: NE
Photo Name:
20140304_1100_DOW_B-47 B-Pond level at 11amv3.jpg
Date and Time: Mar 4 2014 12:00AM
Latitude: 28.985244
Longitude: -95.405730
Photographer: Tom Walzer
Witness:
Caption:
04 March 2014 1100 hours B-47 B Pond level

EPA Response Manager Photo Report

SEARCH

Enter Photo # DISPLAY

Incident Name:	B1700
Event Name:	DowChemical-B1700 Phenol
Photo Type:	Overview
Direction:	NE
Photo Name:	20140304_1316-IMG_0558.JPG
Date and Time:	Mar 4 2014 12:00AM
Latitude:	28.981905
Longitude:	-95.403519
Photographer:	Tom Walzer
Witness:	
Caption:	

04 March 2014 1100 hours B-47 B Pond level

ATTACHMENT E

NRC REPORT NO. 1075337

Submit Action Report | Spill Summary Report

NATIONAL RESPONSE CENTER 1-800-424-8802
GOVERNMENT USE ONLYGOVERNMENT USE ONLY***
Information released to a third party shall comply with any
applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 1075337

INCIDENT DESCRIPTION

*Report taken by: CIV LOTTIE JOHNSON at 05:12 on 28-FEB-14
Incident Type: PIPELINE
Incident Cause: OTHER
Affected Area:
Incident occurred on 28-FEB-14 at 00:00 local incident time.
Affected Medium: LAND

SUSPECTED RESPONSIBLE PARTY

Name: DONNIE SCHUMAKER
Organization: DOW CHEMICAL
Address: 2301 N. BRAZOSPORT BLVD
FREEPORT, TX 77541
PRIMARY Phone: (979)2382112
Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

2301 N. BRAZOSPORT BLVD County: BRAZORIA

City: FREEPORT State: TX Zip: 77541

RELEASED MATERIAL(S)

CHRIS Code: PHN Official Material Name: PHENOL
Also Known As:
Qty Released: 1000 POUND(S)

DESCRIPTION OF INCIDENT

CALLER IS REPORTING A DISCHARGE OF PHENOL FROM A 2 INCH PIPE DUE TO THERMAL EXPANSION OF PRODUCT.

INCIDENT DETAILS

Pipeline Type: FLOW
DOT Regulated: NO
Pipeline Above/Below Ground: ABOVE
Exposed or Under Water: NO
Pipeline Covered: UNKNOWN

IMPACT

Fire Involved: NO Fire Extinguished: UNKNOWN

INJURIES:	NO	Hospitalized:	Empl/Crew:	Passenger:
FATALITIES:	NO	Empl/Crew:	Passenger:	Occupant:

EVACUATIONS: NO Who Evacuated: Radius/Area:

Damages: NO

Closure Type	Description of Closure	Hours Closed	Direction of Closure
Air: N			
Road: N			
Waterway: N			
Track: N			

Major Artery: N

Passengers Transferred: NO
Environmental Impact: UNKNOWN
Media Interest: UNKNOWN Community Impact due to Material:

REMEDIAL ACTIONS

SHUT DOWN ALL PUMPING CAPABILITIES AND TESTING THE WATER, WILL PICK UP MATERIAL

Release Secured: YES
Release Rate:
Estimated Release Duration:

WEATHER

Weather: CLEAR, □F

ADDITIONAL AGENCIES NOTIFIED

Federal:
State/Local: EMERGENCY MANAGEMENT BY FAX
State/Local On Scene:
State Agency Number:

NOTIFICATIONS BY NRC

DHS TEXAS FUSION CENTER (INTELLIGENCE OFFICERS)
28-FEB-14 05:18 (202)3068204
DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)
28-FEB-14 05:18 (202)3661863
U.S. EPA VI (MAIN OFFICE)
28-FEB-14 05:19 (866)3727745 MR. RUHL
JFO-LA (COMMAND CENTER)
28-FEB-14 05:18 (225)3366513
NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)
28-FEB-14 05:18 (202)2829201
NOAA RPTS FOR TX (MAIN OFFICE)
28-FEB-14 05:18 (206)5264911
NATIONAL RESPONSE CENTER HQ (AUTOMATIC REPORTS)
28-FEB-14 05:18 (202)2671136
NTSB PIPELINE (MAIN OFFICE)
28-FEB-14 05:18 (202)3146293
TCEQ (MAIN OFFICE)
28-FEB-14 05:18 (512)2392507
TCEQ (REGION 12)
28-FEB-14 05:18 (512)2392507
DEPT OF ENERGY STPR (STRATEGIC PETROLEUM RESERVE-EMERGENCY MGMT)
28-FEB-14 05:18 (504)7344113
TX DEPT OF STATE HEALTH SERVICES (COMMAND CENTER)
28-FEB-14 05:18 (512)4587220
TX GENERAL LAND OFFICE (MAIN OFFICE)
28-FEB-14 05:18 (281)4706597
TX GENERAL LAND OFFICE (TXGLO REGION 2)
28-FEB-14 05:18 (281)4706597
TEXAS STATE OPERATIONS CENTER (COMMAND CENTER)
28-FEB-14 05:18 (512)4242208
USCG DISTRICT 8 (MAIN OFFICE)
28-FEB-14 05:18 (504)5896225

USCG DISTRICT 8 (PLANNING)
28-FEB-14 05:18 (504)6712080

ADDITIONAL INFORMATION

CALLER WILL NOTIFY TCEQ.

*** END INCIDENT REPORT # 1075337 ***

Report any problems by calling 1-800-424-8802
PLEASE VISIT OUR WEB SITE AT http://www.nrc.uscg.mil

Close Window

ATTACHMENT F

POLLUTION REPORTS (POLREPS)

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Dow Chemical-B1700Phenol - Removal Polrep
Initial Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject:	**POLREP #1** **Initial** **Dow Chemical-B1700Phenol** **A6JE** **Freeport, TX** **Latitude: 28.9925450 Longitude: -95.3956120**
To:	Ronnie Crossland, Superfund Division Lawrence Stanton, EPA HQ Anthony Buck, TCEQ
From:	Adam Adams, OSC
Date:	3/1/2014
Reporting Period:	02/28/2014 and 03/01/2014

1. Introduction

1.1 Background

Site Number:	1075337	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	2/28/2014	**Start Date:**	2/28/2014
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:	1075337	**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

CERCLA Emergency Response / Active Production Facility

1.1.2 Site Description

According to the PRP, this Dow Chemical Facility (Site) is the largest chemical manufacturing facility in the United States.

1.1.2.1 Location

The Dow Chemical Facility is located in Brazoria County, Freeport, Texas of Hwy 288.

Release point Latitude: 28.992545

Release point Longitude: -95.395612.

The Site borders the Brazos River to the south, where facility drainage flows.

Incident Command is located at 2301 N. Brazosport Blvd, Freeport, Texas 77541.

1.1.2.2 Description of Threat
A leak in an internal line released 46,500 pounds (3,514 gallons) of phenol into the plant's storm water system which is pumped into the Brazos River. Phenol is a dangerous poison and a combustible liquid vapor. Phenol may be fatal if absorbed through the skin. Phenol can cause severe burns to mucus membranes; eyes, mouth, throat, and respiratory tract. Phenol may cause central nervous system effects. The release has impacted 10,000,000 gallons of water in the storm water system to concentrations between 800 to 900 milligram per liter (mg/L). Several over-the-counter topical products are produced at similar concentrations. The impacted water is currently contained onsite in approximately 1.5 miles of drainage ditch. There has been no impact offsite.

This incident was determined by the US Coast Guard (USCG) and US Environmental Protection Agency (EPA) OSC to be of medium significance.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
Upon initial assessment by USCG and confirmed by EPA, phenol contaminated storm water is contained in the drainage ditches / pathway from the release point to an earthen berm installed by the Potentially Responsible Party (PRP) prior to impact to the Brazos River. The PRP collected samples from downstream of the drainage pump basin earthen berm/dam and confirmed no impact to the Brazos River at the outfall. Analysis of the contaminated storm water in the drainage ditches measures 800 to 900 mg/L phenol, between 7 and 8 pH, and between 7 and 8.5 dissolved oxygen (DO). Less than 100 small and medium fish were found impacted in the drainage ditches.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative
At around midnight on 28 February 2014 a phenol odor was identified near unit B1700. The release was traced to a 2-inch insulated pipe in a pipe rack on the south side of the unit into the 403 storm system (drainge ditch). Review of the spill identified that the phenol had not reached the pump station for the outfall 403. The pump station was shutdown to prevent phenol from being pumped into the Brazos River.

2.1.2 Response Actions to Date
The PRP has installed several earthen berms / dams within the 403 storm water system to limit the spread of contamination as well as additional flow into the 403 storm water system. They have constructed a large dam upstream of the pump station basin to isolate the western impacted section of the storm water system. This will allow the impacted water at the pump station to be pumped back into the contained impacted system. The PRP is currently evaluating options for temporary storage and treatment.

Current strategies being developed by the PRP:

Diversion - Areas that flow into the current 403 system are diverted into non-impacted sections of the storm water system to prevent further accumulation and contaminated storm water.

Piping Operations - Available piping with the B block are being redirected and fitted for piping contaminated storm water from the 403 system to an on-site containment (Dorr pond); this pumping operation will not begin until the Dorr pond is evacuated of its current uncontaminated liquids.

Barge Operations - barges are being acquired for potential storage utilization of the contaminated water from the north of B block.

Carbon Beds - activated carbon units are on-site and being set up for scrubbing the contaminated water in the 403 system. This operation will be initiated at the 403 system pump outfall basin to clear the basin and allow clean water from the east to utilize the outfall with releasing the contaminated 403 storm

water. Upon completion of basin evacuation, the carbon units may be used to scrub additional stored phenol contaminated storm water from the 403 system.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)
The PRP is Dow Chemical.

2.1.4 Progress Metrics
No disposal operations have been reported at this time; however, estimates indicate approximately 10,000,000 gallons of phenol contaminated storm water presently secured in the 403 system.

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities
1. Continue safety of response personnel, protection of public health and the environment, and prevent off-site migration.
2. Evacuate impoundment Dorr pond of fresh water, for storage of the phenol contaminated storm water.
3. Treat the contaminated storm water by activated carbon scrubbing/filtration (or ion bed filtration).
4. Continue analysis of the contaminated storm water (pH, DO, phenol concentrations).

2.2.1.2 Next Steps
Determine treatment method of contaminated storm water.

2.2.2 Issues
1. Potential rain event on the evening of 03/02/14.
2. Approximately 50 small fish and a few medium catfish were found in the 403 drainage ditch system impacted by the incident.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

At the present time, it is estimated that the response effort by EPA and the USCG will not exceed $50,000.00.

Resources expended by the PRP have not been provided to the EPA for this POLREP.

Note that the estimates in the following table are only estimates or approximations.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
IAGs (USCG)	$25,000.00	$14,000.00	$11,000.00	44.00%
TAT/START	$15,000.00	$4,000.00	$11,000.00	73.33%
Intramural Costs				

USEPA - Direct	$5,000.00	$1,000.00	$4,000.00	80.00%
USEPA - InDirect	$5,000.00	$1,000.00	$4,000.00	80.00%
Total Site Costs	$50,000.00	$20,000.00	$30,000.00	60.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

Health and Safety is being performed by each on-site entity/agency (EPA, USCG, TCEQ, PRP); with primary Safety being conducted by the PRP due to the volume of personnel on-site conducting operations directly or contracted by the PRP.

2.5.2 Liaison Officer

NA

2.5.3 Information Officer

The PRP has a public affairs officer that has been communicating information to the community and stakeholders since the incident was found.

3. Participating Entities

3.1 Unified Command

Unified Command consists of the PRP, EPA, USCG, TCEQ, and Brazoria County Emergency Management.

Due to the proximity to the incident and threat to the Brazos River, USCG responded to the incident under their coastal navigable waters jurisdictional authority. Upon confirmation that there was no impact to the Brazos River, USCG requested EPA take the response oversight lead under inland jurisdictional authority by request to the EPA Hotline. The EPA OSC and START contractors were activated on the evening of 02/28/14 and on-site the morning of 03/01/14.

4. Personnel On Site

As of 03/01/14, personnel on-site include:

EPA - 1 person
EPA contractor (START) - 2 persons
USCG - 10 persons
TCEQ - 1 person
Brazoria County Emergency Management - 1 person
PRP - approximately 250 persons

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epaosc.org/B1700Phenol

6.2 Reporting Schedule

Additional POLREPs will be provided upon completion of the incident response / closure (Final), as progress

continues (Progress), or after any significant changes in the incident response (Special), as warranted by the response.

7. Situational Reference Materials

No information available at this time.

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Dow Chemical-B1700Phenol - Removal Polrep
Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject:	**POLREP #2** **Final** **Dow Chemical-B1700Phenol** **A6JE** **Freeport, TX** **Latitude: 28.9925450 Longitude: -95.3956120**
To:	Ronnie Crossland, Superfund Division Lawrence Stanton, EPA HQ Anthony Buck, TCEQ
From:	Adam Adams, OSC
Date:	3/11/2014
Reporting Period:	03/04/2014 to 03/10/2014

1. Introduction

1.1 Background

Site Number:	A6JE	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	2/28/2014	**Start Date:**	2/28/2014
Demob Date:	3/8/2014	**Completion Date:**	3/11/2014
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:	1075337	**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

CERCLA Emergency Response / Active Production Facility / PRP Oversight

1.1.2 Site Description

According to the PRP, this Dow Chemical Facility (Site) is the largest chemical manufacturing facility in the United States.

1.1.2.1 Location

The Dow Chemical Facility is located in Brazoria County, Freeport, Texas of Hwy 288.

Release point Latitude: 28.992545

Release point Longitude: -95.395612.

The Site borders the Brazos River to the south, where facility drainage flows.

Incident Command is located at 2301 N. Brazosport Blvd, Freeport, Texas 77541.

1.1.2.2 Description of Threat
A leak in an internal line released 46,500 pounds (3,514 gallons) of phenol into the plant's canal water system which is pumped into the Brazos River. Phenol is a dangerous poison and a combustible liquid vapor. Phenol may be fatal if absorbed through the skin. Phenol can cause severe burns to mucus membranes; eyes, mouth, throat, and respiratory tract. Phenol may cause central nervous system effects. The release has impacted 10,000,000 gallons of water in the storm water system to concentrations between 800 to 900 milligram per liter (mg/L). Several over-the-counter topical products are produced at similar concentrations. The impacted water is currently contained onsite in approximately 1.5 miles of drainage ditch. There has been no impact offsite.

This incident was determined by the US Coast Guard (USCG) and US Environmental Protection Agency (EPA) OSC to be of medium significance.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
Upon initial assessment by USCG and confirmed by EPA, phenol contaminated storm water is contained in the drainage ditches / pathway from the release point to an earthen berm installed by the Potentially Responsible Party (PRP) prior to impact to the Brazos River. The PRP collected samples from downstream of the drainage pump basin earthen berm/dam and confirmed no impact to the Brazos River at the outfall. Analysis of the contaminated storm water in the drainage ditches measures 800 to 900 mg/L phenol, between 7 and 8 pH, and between 7 and 8.5 dissolved oxygen (DO). Less than 100 small and medium fish were found impacted in the drainage ditches.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative
At around midnight on 28 February 2014 a phenol odor was identified near unit B1700. The release was traced to a 2-inch insulated pipe in a pipe rack on the south side of the unit into the 403 canal system (drainage ditch). Review of the spill identified that the phenol had not reached the pump station for the outfall 403. The pump station was shutdown to prevent phenol from being pumped into the Brazos River. The initial estimates of 10,000,000 gallons of canal water impacted was increased to 20,000,000 gallons based on a more extensive survey of the canal system configuration. A rain event on 02 March 2014 may have added as much as 10,000,000 gallons to the system.

2.1.2 Response Actions to Date
The PRP installed several earthen berms / dams within the 403 canal water system to limit the spread of contamination as well as additional flow into the 403 canal water system. The canal system handles storm water and seawater used as once through cooling water in the plant. They had constructed a large dam upstream of the pump station basin to isolate the western impacted section of the canal water system. This allowed the impacted water at the pump station to be pumped back into the contained impacted system.

Transfer to the Dorr Pond #4 began at 1630 hours 02 March 2014. Transfer to Dorr Pond #3 began on the evening of 03 March 2014. Transfer to B-47 Pond began at 0600 hours 04 March 2014. Transfer to the Dorr Ponds was discontinued at 1630 Hours on 05 March 2014 with 1,000,000 gallons of capacity remaining as a contingency.

At 1100 hours on 07 March 2014 flushing operations began to move residual liquids in the canal system to pick up points by the 403 basin. They removed dams for non-impacted portions of the 403 canal system. Some of the dams isolated low impacted sections. The dams that isolated the low impacted areas were removed first. Areas of impact that could not be flushed using trapped water were flushed using fire water. On 08 March 2014 the last of the isolation dams in the canal system were removed and the trapped water used to flush the impacted water to pick up points was removed to B-47 Pond. On 08 March 2013 the phenol concentrations in the canal measured were at 5 locations and ranged between 0.5 ppm and 4.0 ppm, with the 003 outfall still at non-detectable. Base on the low concentrations

detected, the isolation dam that separated the canal from the 403 Basin and discharge point to the outfall was removed and the plant returned to normal operation.

Excavation of the area at the release point has begun. The excavation in the canal has been completed to prevent impacted soil from being flushed into the rest of the 403 canal system. The excavated soil was placed into roll-off boxes pending identification of disposal options. Impacted soils under the pipe rack were isolated with a diversion berm to a sump lined with plastic. Excavation of the soil under the pipe rack began on 08 March 2014 and will continue until completed.

Strategies implemented by the PRP:

Diversion - Areas that flow into the current 403 system were diverted into non-impacted sections of the canal system to prevent further accumulation and contamination of storm water. Some non-impacted water was retained in portions in the 403 canal system to be used to flush the impacted areas once the impacted water has been removed.

Dorr Ponds - Available piping with the B block was redirected and fitted to pipe contaminated canal water from the 403 system to an on-site containment (Dorr ponds #3 and #4). There was an estimated 10,000,000 gallons storage capacity in the Dorr ponds. After uncontaminated liquids were removed from the Dorr ponds, the transfer to Pond #4 began at 1630 hours 02 March 2014. Transfer to Dorr Pond #3 was delayed until 03 March 2014 due to the hot cut. Transfer to the Dorr Ponds was discontinued at 1630 Hours on 05 March 2014 with 1,000,000 gallons of capacity remaining as a contingency.

B-47 Pond on the south side of Plant B was used as a storage location. Pond B is a clay lined impoundment with a capacity of 44,000,000 gallons and an empty free board of 19 feet. A transfer plan was submitted to the agencies as the transfer required piping to cross the 003 outfall that has direct discharge to the Brazos River. They are initially installed 2 12-inch hoses to do this transfer and a third hose was installed to transfer liquids. The sections that cross water are welded steel pipe mounted on a existing pipe bridge. The USCG was onsite to monitor the commissioning of the transfer lines. Transfer to B-47 Pond began at 0600 hours 04 March 2014. As of 1330 hours on 06 March 2014, 7.25 feet of the 19 feet capacity have been used. On 08 March 2014 transfer to B-47 pond was ceased when the concentration in the 403 canal system dropped to levels that would not cause an exceedence of the NPDES permit. On 08 March 2014 at approximately 1530 hours the concentration in the B-47 Pond ranged from 100 to 103 ppm.

Treatment strategies considered by the PRP:

Carbon Beds - ON HOLD - Activated carbon units were on-site and being considered for scrubbing the contaminated water.

Steam Stripping - the PRP has identified that some phenol may be recovered with steam stripping in working to identify what would be required to recover the Phenol.

ANALYTICAL RESULTS - On 08 March 2014, the maximum detected in the canal system was 4 ppm phenol. The 403 basin and 003 outfall was below detection limits of phenol.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)
The PRP is Dow Chemical.

2.1.4 Progress Metrics
No disposal operations have been reported at this time; however, estimates indicate approximately 20,000,000 gallons of phenol contaminated canal water presently secured in temporary storage.

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities
On 09 March 2011, the plant was returning equipment and returning plant to normal traffic flows.

2.2.1.2 Next Steps
1. Determine treatment method of contaminated water.
2. Determine treatment or disposal options for impacted soil from the release point.

2.2.2 Issues

1. Dow is continuing to monitor their discharge as part of their NPDES permit for Phenol.
2. Approximately 100 small fish and a few medium catfish were found in the 403 drainage ditch system impacted by the incident.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

At the present time, it is estimated that the response effort by EPA will not exceed $30,000.00.

Resources expended by the PRP have not been provided to the EPA for this POLREP.

2.5 Other Command Staff

2.5.1 Safety Officer

Health and Safety is being performed by each on-site entity/agency (EPA, USCG, TCEQ, PRP); with primary Safety being conducted by the PRP due to the volume of personnel on-site conducting operations directly or contracted by the PRP.

2.5.2 Liaison Officer

NA

2.5.3 Information Officer

The PRP has a public affairs officer that has been communicating information to the community and stakeholders since the incident was found.

3. Participating Entities

3.1 Unified Command

Unified Command consists of the PRP, EPA, USCG, TCEQ, and Brazoria County Emergency Management.

Due to the proximity to the incident and threat to the Brazos River, USCG responded to the incident under their coastal navigable waters jurisdictional authority. Upon confirmation that there was no impact to the Brazos River, USCG requested EPA take the response oversight lead under inland jurisdictional authority by request to the EPA Hotline. The EPA OSC and START contractors were activated on the evening of 02/28/14 and on-site the morning of 03/01/14.

4. Personnel On Site

Throughout the response, the following entities and personnel have been on Site, at the discretion of the respective entities:

EPA - 1 person
EPA contractor (START) - 2 persons (up to)
USCG - 10 persons (up to)
TCEQ - 1 person
Brazoria County Emergency Management - 1 person

PRP - approximately 250 persons (up to)

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epaosc.org/DowChemical-B1700Phenol

6.2 Reporting Schedule

No additional POLREPs will be submitted for this response.

7. Situational Reference Materials

No information available at this time.

INCIDENT OBJECTIVES (ICS 202)

1. Incident Name:	2. Operational Period:	Date From: 3/1/2014	Date To: 3/2/2014
B-1700 Phenol Spill		Time From: 0900	Time To: 0900

3. Objective(s):

Provide for the safety, security and welfare of citizens and response personnel.
Conduct efforts to effectively clean up and dispose of spilled product.
Identify locations for the temporary storage and long-term disposal of waste from the incident.
Identify and maximize protection of the environmentally sensitive areas.
Develop and implement a long-term monitoring plan.
Mange a coordinated interagency response effort that reflects the makeup of Unified Command.
Keep the public, stakeholders and the media informed of response activities.
Return the plant to planned operating capacity.

4. Operational Period Command Emphasis:

Command emphasis is to remove threat due to the phenol spill and protect the safety and welfare of citizens and response personnel by trying to execute the following:

1. Move water out of 403 canal to #3 holding pond.
2. Need to empty #3 holding pond.
3. Lay out pumps and piping to drain the #3 pond
4. Define and coodinate pipe line modification to transfer 403 canal water to #3 holding pond.
5. Bring in carbon beds at 403 outfall. Flush / flow 403 outfall through carbon beds
6. Build dike to segregate 403 pump station from the canal. Dewater 403 pump station to contaminated side. Bring fresh water from the east side to put 403 outfall back in service, utilizing carbone beds when needed.
7. Divert ditches on West end of plant to B-71 outfall.
8. Develop plan for transfer to Plant A tanks
9. Determine additive compatability for cooling tower blow down to EOB.

General Situational Awareness

Insure that all personnel are empowered to act as a safety officer and have the ability to stop any operation that may be considered unsafe as supported by The Dow Chemical Company.

5. Site Safety Plan Required? Yes X No ☐

Approved Site Safety Plan(s) Located at: The Dow Chemical Site Emergency Plan - DCC EOC

6. Incident Action Plan (the items checked below are included in this Incident Action Plan)**:**

☐ ICS 203	☐ ICS 207	Other Attachments:
☐ ICS 204	☐ ICS 208	☐ _____
☐ ICS 205	☐ Map/Chart	☐ _____
☐ ICS 205A	☐ Weather Forecast/Tides/Currents	☐ _____
☐ ICS 206		☐ _____

7. Prepared by: Name: Position/Title: Signature: _____

1. Incident Name: B-1700 Phenol Spill	2. Operational Period:	Date From: 3/1/2014	Date To: 3/2/2014
		Time From: 0900	Time To: 0900

8. Approved by Incident Commander:	Name:	Signature: _____
ICS 202 | IAP Page	Date/Time: Date	

ICS 202
Incident Objectives

Purpose. The Incident Objectives (ICS 202) describes the basic incident strategy, incident objectives, command emphasis/priorities, and safety considerations for use during the next operational period.

Preparation. The ICS 202 is completed by the Planning Section following each Command and General Staff meeting conducted to prepare the Incident Action Plan (IAP). In case of a Unified Command, one Incident Commander (IC) may approve the ICS 202. If additional IC signatures are used, attach a blank page.

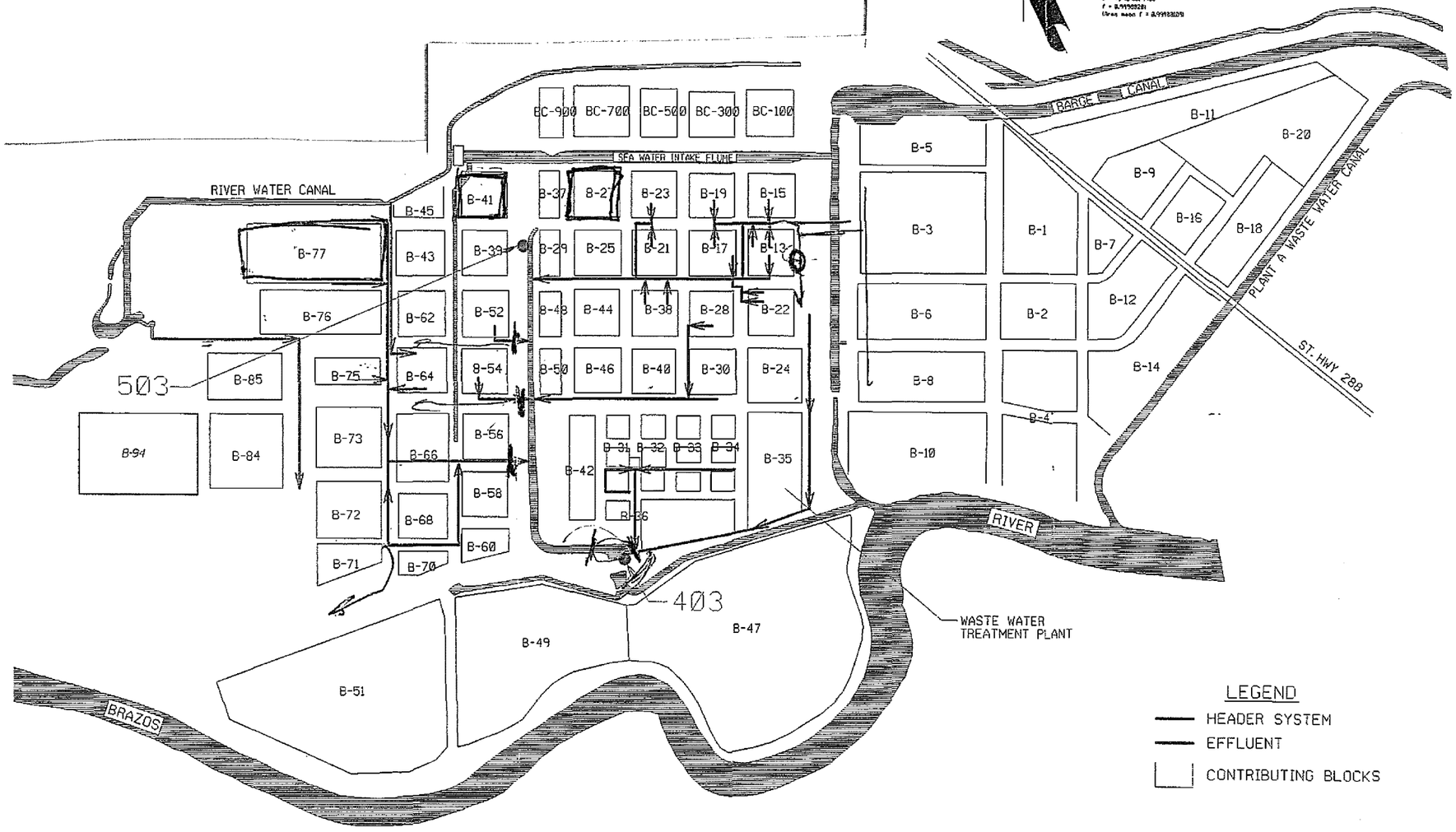
Distribution. The ICS 202 may be reproduced with the IAP and may be part of the IAP and given to all supervisory personnel at the Section, Branch, Division/Group, and Unit levels. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 202 is part of the IAP and can be used as the opening or cover page.
- If additional pages are needed, use a blank ICS 202 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident. If needed, an incident number can be added.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Objective(s)**	Enter clear, concise statements of the objectives for managing the response. Ideally, these objectives will be listed in priority order. These objectives are for the incident response for this operational period as well as for the duration of the incident. Include alternative and/or specific tactical objectives as applicable. Objectives should follow the SMART model or a similar approach: **S**pecific – Is the wording precise and unambiguous? **M**easurable – How will achievements be measured? **A**ction-oriented – Is an action verb used to describe expected accomplishments? **R**ealistic – Is the outcome achievable with given available resources? **T**ime-sensitive – What is the timeframe?
4	**Operational Period Command Emphasis**	Enter command emphasis for the operational period, which may include tactical priorities or a general weather forecast for the operational period. It may be a sequence of events or order of events to address. This is not a narrative on the objectives, but a discussion about where to place emphasis if there are needs to prioritize based on the Incident Commander's or Unified Command's direction. Examples: Be aware of falling debris, secondary explosions, etc.
	General Situational Awareness	General situational awareness may include a weather forecast, incident conditions, and/or a general safety message. If a safety message is included here, it should be reviewed by the Safety Officer to ensure it is in alignment with the Safety Message/Plan (ICS 208).
5	**Site Safety Plan Required?** Yes ☐ No ☐	Safety Officer should check whether or not a site safety plan is required for this incident.
	Approved Site Safety Plan(s) Located At	Enter the location of the approved Site Safety Plan(s).

Block Number	Block Title	Instructions
6	**Incident Action Plan** (the items checked below are included in this Incident Action Plan): ☐ ICS 203 ☐ ICS 204 ☐ ICS 205 ☐ ICS 205A ☐ ICS 206 ☐ ICS 207 ☐ ICS 208 ☐ Map/Chart ☐ Weather Forecast/ Tides/Currents Other Attachments:	Check appropriate forms and list other relevant documents that are included in the IAP. ☐ ICS 203 – Organization Assignment List ☐ ICS 204 – Assignment List ☐ ICS 205 – Incident Radio Communications Plan ☐ ICS 205A – Communications List ☐ ICS 206 – Medical Plan ☐ ICS 207 – Incident Organization Chart ☐ ICS 208 – Safety Message/Plan
7	**Prepared by** • Name • Position/Title • Signature	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).
8	**Approved by Incident Commander** • Name • Signature • Date/Time	In the case of a Unified Command, one IC may approve the ICS 202. If additional IC signatures are used, attach a blank page.



REV. MARK	REVISION	BY	CHK	APP	DATE

DRAWING ISSUE RECORD

ISSUE NO.	REV	MATERIAL OR JOB SPEC	DATE ISSUED FOR: BID	FAB	CONST	REF

DESIGNED
DRAWN C.S. PAVLICEK 5/89
CHECKED
APPROVED
PROJ. ENGR.
MFG. REP.

STATUS UK
PLANT NO.
P.E. SEAL

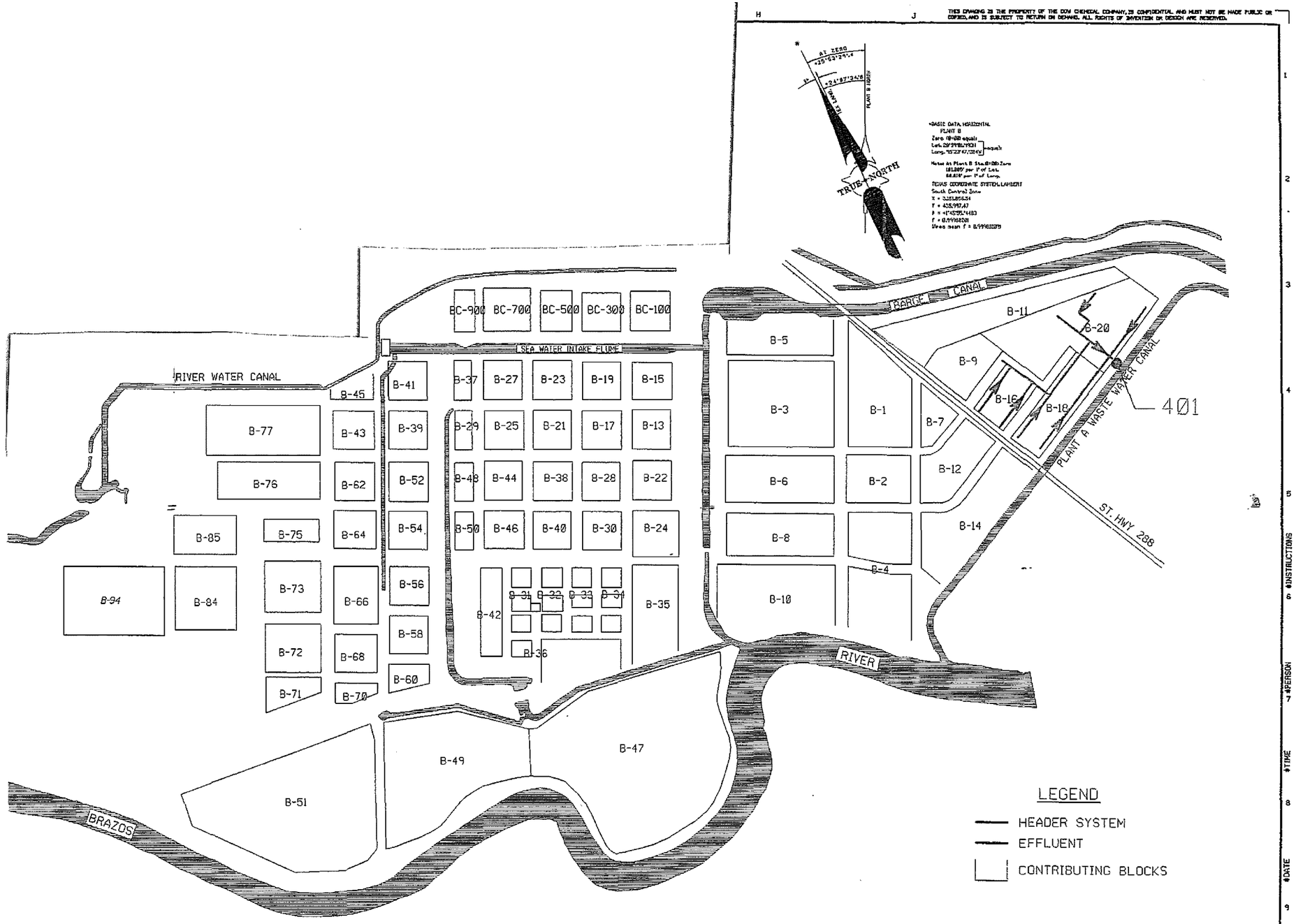
THE DOW CHEMICAL COMPANY
TEXAS OPERATIONS FREEPORT, TEXAS
ENVIRONMENTAL PLANT B

DSN403 CONTRIBUTING BLOCKS AND INTERNAL OUTFALLS AT PLANT B
LOCATION MAP

CHANGE NUMBER	SCALE		REV.
1365	GRAPHIC	B2-403-1365	B

PRINTED VER. 10

#INSTRUCTIONS #PERSON #TIME #DATE #FILENAME



REV. MARK	REVISION	BY	CHK	APP	DATE

DRAWING ISSUE RECORD

ISSUE NO.	REV	MATERIAL OR JOB SPEC	SID	PAB	CONST	REF

DATE ISSUED FOR

DESIGNED		
DRAWN	C.S. PAVLICEK	5/89
CHECKED		
APPROVED		
PROJ. ENGR.		
MFG. REP.		

STATUS UK | PLANT NO.
P.E. SEAL

THE DOW CHEMICAL COMPANY
TEXAS OPERATIONS — FREEPORT, TEXAS
ENVIRONMENTAL — PLANT B

DSN401
CONTRIBUTING BLOCKS
LOCATION MAP

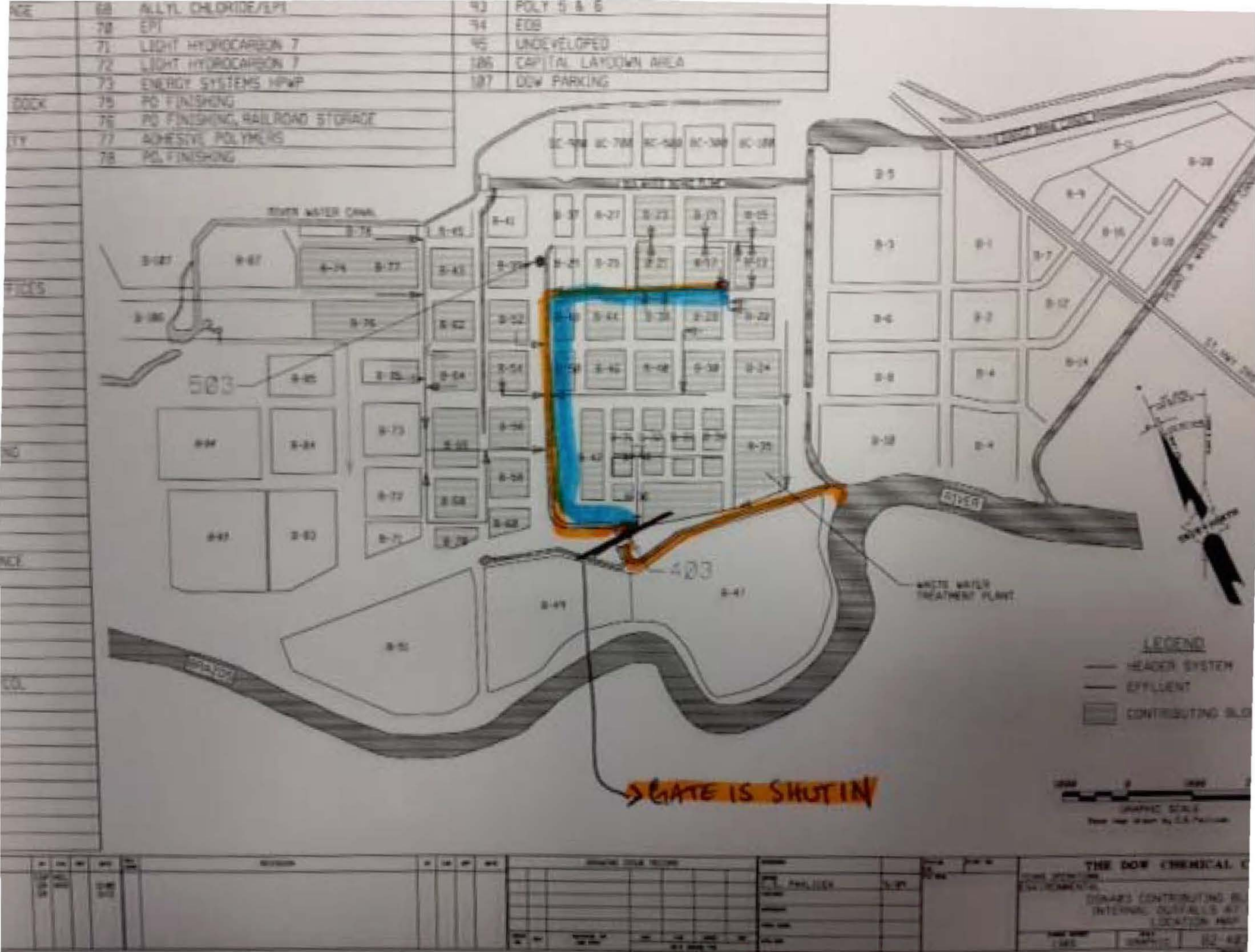
CHARGE NUMBER	SCALE		REV.
1365	GRAPHIC	B2-401-1365	9

PRINTED | VOL. 9

D E F G H J K

INSTRUCTIONS | PERSON | TIME | DATE | FILENAME

68	ALLYL CHLORIDE/EPI	93	POLY 5 & 6
70	EPI	94	EDB
71	LIGHT HYDROCARBON 7	95	UNDEVELOPED
72	LIGHT HYDROCARBON 7	106	CAPITAL LAYDOWN AREA
73	ENERGY SYSTEMS HPWP	107	DOW PARKING
75	PO FINISHING		
76	PO FINISHING, RAILROAD STORAGE		
77	ADHESIVE POLYMERS		
78	PO FINISHING		



1. Incident Name B1700 PHENOL RELEASE	2. Operational Period to be covered by IAP (Date/Time) From: 0900 02MAR2014 To: 0900 04MAR2014	CG IAP COVER SHEET

3. Approved by Incident Commander(s):

ORG	NAME
DOW	
EPA	
TCEQ	
USCG	

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

- [x] ICS 202-CG (Response Objectives)
- [x] ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart)
- [x] ICS 204-CGs (Assignment Lists)
  One Copy each of any ICS 204-CG attachments:
- [x] ICS 205-CG (Communications Plan)
- [x] ICS 206-CG (Medical Plan)
- [x] ICS 208-CG (Site Safety Plan) or Note SSP Location _____
- [x] Map/Chart
- [ ] Weather forecast / Tides/Currents

Other Attachments

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

4. Prepared by:	Date/Time
Keith Naker, USCG	02MAR2014 1526

Unified Command Meeting: 3/2/14 14:00

Supplement to the ICS 202 for the Operational Period March 2, 9am thru March 4, 9am.
Section 4: Operational Period Command Emphasis

Containment – Completed

- Refined numbers: 46,500lbs = 5,314 gallons
- Hot Zone cleanup started. Collecting water in Frac Tank.

Diversion:

Clean Water – Going to outfall 102: 2 pumps at B-13, 1 Pump at NW corner B-13,
– Going to outfall 403: 1 pumps for SE B-15

403 Basin Decontamination – Pumped out based to remove contaminated water (Conc. in btm of empty basin was 50 ppm). Refilling with clean water from the east (Conc. is at 10 – 20 ppm). Will put back in service at 1 – 2 Mgpm. Once this reaches the 003 outfall, conc will be below 0.5 ppm

403 Contaminated Water Evacuation:

B-300 Dorr Pond - # 3 pond about 50% emptied. Running 3 pumps. #4 pond dewatered.

1. **Sludge Line** – Completed tie points this morning. Start pumping this afternoon
2. **PO Hot water pipeline** – Hoses being finalized from B-13 to Dorr pond. Hot tap line today. Estimated flow will be 6 – 7 Mgpm

Plant A Storage (6 MM gallons): 4 days out to complete

1. **Pipeline to Plt A (~800,000 gpd)**– need fab pipe to run across sea water canal, other crossings
2. **Cumen Tanks** – pulled roof and completed inspection. Tank is good.
3. **Barges** – on-going and will coordinate all activities through coast guard.

Treatment – Carbon Beds: 24 hour soak time required to maximize effectiveness. Start soaking as soon as vessels are set.

1. **Siemens**: 600 gpm: North side of 403 Basin. Vessels are set on rig mats.
2. **Baker**: 2 x 600 gpm: Laydown yard. Preparing site on South side of 403 basin for rig mats
3. **Long term**: once 403 canal is back in service, carbon beds will be moved to Dorr ponds to treat contained contaminated material.

Cooling Towers – Need to cycle other CTs to keep all systems good.

Analytical – getting round of samples this morning.

Weather: Rain Forecast 60 – 90% between 20:00 – 24:00. Continuing work to segregate contaminated 403 canal.

Unified Command Approval Signatures: Valerie Ann Boyd... USCG
[signature] EPA
[signature] BCOEM
Mark Kuettel DOW IC
Faith [signature] TCEQ

INCIDENT OBJECTIVES (ICS 202)

1. Incident Name:	2. Operational Period:	Date From: 3/2/2014	Date To: 3/4/2014
B-1700 Phenol Spill		Time From: 0900	Time To: 0900

3. Objective(s):

Provide for the safety, security and welfare of citizens and response personnel.
Conduct efforts to effectively clean up and dispose of spilled product.
Identify locations for the temporary storage and long-term disposal of waste from the incident.
Identify and maximize protection of the environmentally sensitive areas.
Develop and implement a long-term monitoring plan.
Mange a coordinated interagency response effort that reflects the makeup of Unified Command.
Keep the public, stakeholders and the media informed of response activities.
Return the plant to planned operating capacity.

4. Operational Period Command Emphasis:

Command emphasis is to remove threat due to the phenol spill and protect the safety and welfare of citizens and response personnel by trying to execute the following:

1. Dewater B-300 Dorr Pond #3
2. Uncontaminate 403 Basin
3. Evacuate 403 Canal

General Situational Awareness

Insure that all personnel are empowered to act as a safety officer and have the ability to stop any operation that may be considered unsafe as supported by The Dow Chemical Company.

5. Site Safety Plan Required? Yes X No ☐

Approved Site Safety Plan(s) Located at: The Dow Chemical Site Emergency Plan - DCC EOC

6. Incident Action Plan (the items checked below are included in this Incident Action Plan):

☐ ICS 203	☒ ICS 207	Other Attachments:	
☒ ICS 204	☒ ICS 208	☐	ICS 230 MEETING SCHEDULE
☒ ICS 205	☒ Map/Chart	☐	
☐ ICS 205A	☒ Weather Forecast/Tides/Currents	☐	
☒ ICS 206		☐	

7. Prepared by: Name: MSTR JASON STARKEY Position/Title: DEP PLANNING CHIEF Signature: _____

8. Approved by Incident Commander: Name: Signature: _____

ICS 202	IAP Page	Date/Time: Date

ICS 202
Incident Objectives

Purpose. The Incident Objectives (ICS 202) describes the basic incident strategy, incident objectives, command emphasis/priorities, and safety considerations for use during the next operational period.

Preparation. The ICS 202 is completed by the Planning Section following each Command and General Staff meeting conducted to prepare the Incident Action Plan (IAP). In case of a Unified Command, one Incident Commander (IC) may approve the ICS 202. If additional IC signatures are used, attach a blank page.

Distribution. The ICS 202 may be reproduced with the IAP and may be part of the IAP and given to all supervisory personnel at the Section, Branch, Division/Group, and Unit levels. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 202 is part of the IAP and can be used as the opening or cover page.
- If additional pages are needed, use a blank ICS 202 and repaginate as needed.

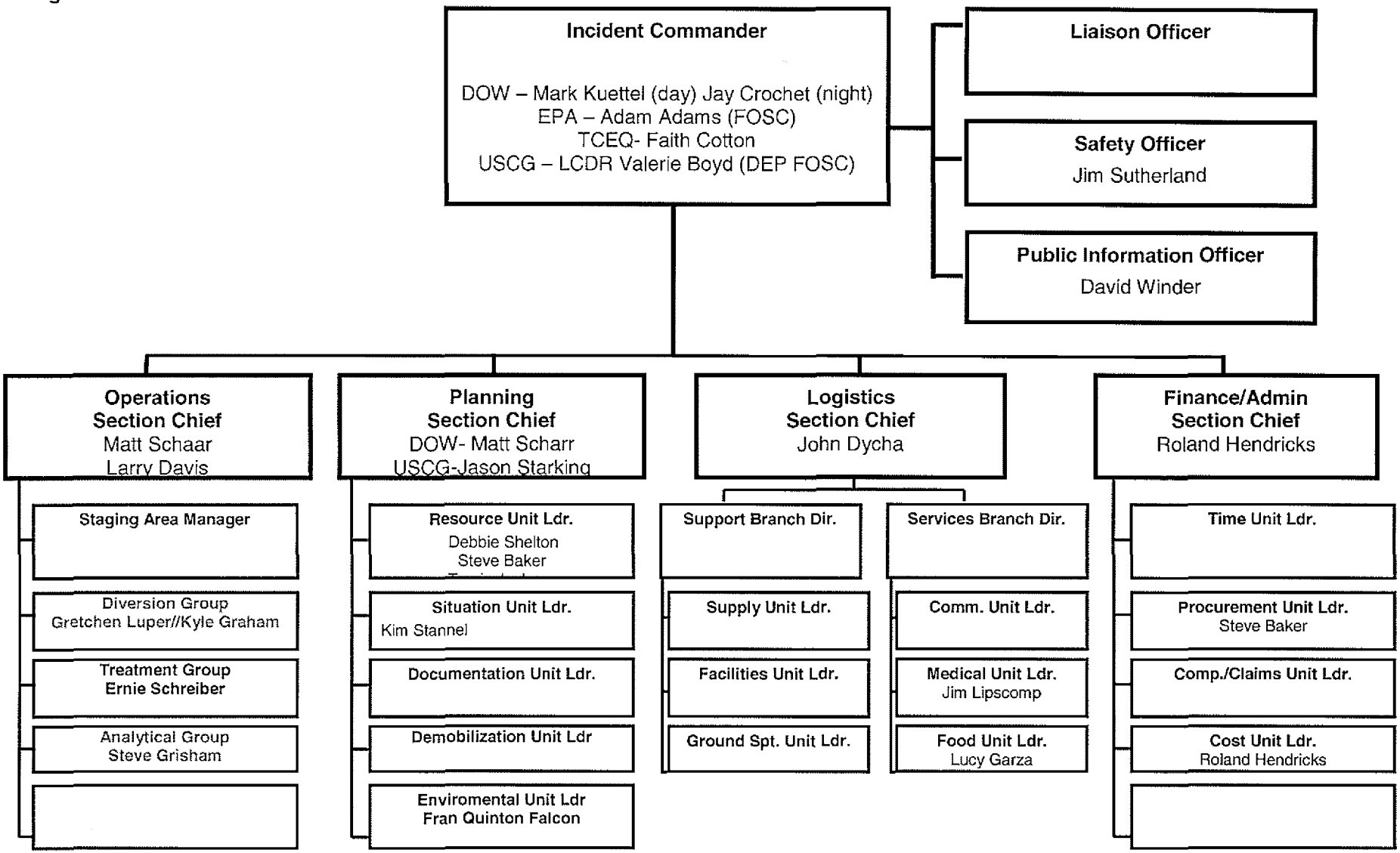
Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident. If needed, an incident number can be added.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Objective(s)**	Enter clear, concise statements of the objectives for managing the response. Ideally, these objectives will be listed in priority order. These objectives are for the incident response for this operational period as well as for the duration of the incident. Include alternative and/or specific tactical objectives as applicable. Objectives should follow the SMART model or a similar approach: **S**pecific – Is the wording precise and unambiguous? **M**easurable – How will achievements be measured? **A**ction-oriented – Is an action verb used to describe expected accomplishments? **R**ealistic – Is the outcome achievable with given available resources? **T**ime-sensitive – What is the timeframe?
4	**Operational Period Command Emphasis**	Enter command emphasis for the operational period, which may include tactical priorities or a general weather forecast for the operational period. It may be a sequence of events or order of events to address. This is not a narrative on the objectives, but a discussion about where to place emphasis if there are needs to prioritize based on the Incident Commander's or Unified Command's direction. Examples: Be aware of falling debris, secondary explosions, etc.
	General Situational Awareness	General situational awareness may include a weather forecast, incident conditions, and/or a general safety message. If a safety message is included here, it should be reviewed by the Safety Officer to ensure it is in alignment with the Safety Message/Plan (ICS 208).
5	**Site Safety Plan Required?** Yes ☐ No ☐	Safety Officer should check whether or not a site safety plan is required for this incident.
	Approved Site Safety Plan(s) Located At	Enter the location of the approved Site Safety Plan(s).

Block Number	Block Title	Instructions
6	**Incident Action Plan** (the items checked below are included in this Incident Action Plan): ☐ ICS 203 ☒ ICS 204 ☒ ICS 205 ☐ ICS 205A ☒ ICS 206 ☒ ICS 207 ☒ ICS 208 ☒ Map/Chart ☒ Weather Forecast/ Tides/Currents Other Attachments:	Check appropriate forms and list other relevant documents that are included in the IAP. ☐ ICS 203 – Organization Assignment List ☐ ICS 204 – Assignment List ☐ ICS 205 – Incident Radio Communications Plan ☐ ICS 205A – Communications List ☐ ICS 206 – Medical Plan ☐ ICS 207 – Incident Organization Chart ☐ ICS 208 – Safety Message/Plan ICS 230 MEETING SCHEDULE
7	**Prepared by** • Name • Position/Title • Signature	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).
8	**Approved by Incident Commander** • Name • Signature • Date/Time	In the case of a Unified Command, one IC may approve the ICS 202. If additional IC signatures are used, attach a blank page.

INCIDENT ORGANIZATION CHART (ICS 207)

1. Incident Name:	2. Operational Period: Date From: 3/2/2014 Date To: 3/4/2014
B 1700 Phenol	Time From: 0900 Time To: 0900

3. Organization Chart



ICS 207	IAP Page	4. Prepared by: Name: MST2 JASON STARKEY	Position/Title:	Signature:	Date/Time: 01 MAR 2014 1523

ICS 207
Incident Organization Chart

Purpose. The Incident Organization Chart (ICS 207) provides a **visual wall chart** depicting the ICS organization position assignments for the incident. The ICS 207 is used to indicate what ICS organizational elements are currently activated and the names of personnel staffing each element. An actual organization will be event-specific. The size of the organization is dependent on the specifics and magnitude of the incident and is scalable and flexible. Personnel responsible for managing organizational positions are listed in each box as appropriate.

Preparation. The ICS 207 is prepared by the Resources Unit Leader and reviewed by the Incident Commander. Complete only the blocks where positions have been activated, and add additional blocks as needed, especially for Agency Representatives and all Operations Section organizational elements. For detailed information about positions, consult the NIMS ICS Field Operations Guide. The ICS 207 is intended to be used as a wall-size chart and printed on a plotter for better visibility. A chart is completed for each operational period, and updated when organizational changes occur.

Distribution. The ICS 207 is intended to be **wall mounted** at Incident Command Posts and other incident locations as needed, and is not intended to be part of the Incident Action Plan (IAP). All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 207 is intended to be **wall mounted** (printed on a plotter). Document size can be modified based on individual needs.
- Also available as 8½ x 14 (legal size) chart.
- ICS allows for organizational flexibility, so the Intelligence/Investigative Function can be embedded in several different places within the organizational structure.
- Use additional pages if more than three branches are activated. Additional pages can be added based on individual need (such as to distinguish more Division/Groups and Branches as they are activated).

Block Number	Block Title	Instructions
1	**Incident Name**	Print the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Organization Chart**	• Complete the incident organization chart. • For all individuals, use at least the first initial and last name. • List agency where it is appropriate, such as for Unified Commanders. • If there is a shift change during the specified operational period, list both names, separated by a slash.
4	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

ASSIGNMENT LIST (ICS 204)

1. Incident Name:	2. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM	3. Branch: Division: Group: Diversion Group Staging Area:
B 1700 Phenol spill		

4. Operations Personnel:

	Name	Contact Number(s)
Operations Section Chief:	James Eland, MSTR	XXX-XXX-XXXX
Branch Director:		XXX-XXX-XXXX
Division/Group Supervisor:	~~Gretchen~~ Gretchen Lupher	XXX-XXX-XXXX

5. Resources Assigned:

Resource Identifier	Leader	# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information
	John Dycha			

6. Work Assignments:

Clean water control near B-13 in NE corner of plant B.

7. Special Instructions:

8. Communications (radio and/or phone contact numbers needed for this assignment):

Name	/Function	Primary Contact: indicate cell, pager, or radio (frequency/system/channel)
Gretchen Lupher	/ Group leader	
	/	
	/	
	/	

9. Prepared by: Name: James A. Eland Position/Title: Ops. Sec. Chief Signature: James A. Eland

ICS 204	IAP Page	Date/Time: Date 01MAR14 1751

ICS 204
Assignment List

Purpose. The Assignment List(s) (ICS 204) informs Division and Group supervisors of incident assignments. Once the Command and General Staffs agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The ICS 204 is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202), Operational Planning Worksheet (ICS 215), and the Operations Section Chief. It must be approved by the Incident Commander, but may be reviewed and initialed by the Planning Section Chief and Operations Section Chief as well.

Distribution. The ICS 204 is duplicated and attached to the ICS 202 and given to all recipients as part of the Incident Action Plan (IAP). In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 204 details assignments at Division and Group levels and is part of the IAP.
- Multiple pages/copies can be used if needed.
- If additional pages are needed, use a blank ICS 204 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Branch** **Division** **Group** **Staging Area**	This block is for use in a large IAP for reference only. Write the alphanumeric abbreviation for the Branch, Division, Group, and Staging Area (e.g., "Branch 1," "Division D," "Group 1A") in large letters for easy referencing.
4	**Operations Personnel** • Name, Contact Number(s) – Operations Section Chief – Branch Director – Division/Group Supervisor	Enter the name and contact numbers of the Operations Section Chief, applicable Branch Director(s), and Division/Group Supervisor(s).
5	**Resources Assigned**	Enter the following information about the resources assigned to the Division or Group for this period:
	• Resource Identifier	The identifier is a unique way to identify a resource (e.g., ENG-13, IA-SCC-413). If the resource has been ordered but no identification has been received, use TBD (to be determined).
	• Leader	Enter resource leader's name.
	• # of Persons	Enter total number of persons for the resource assigned, including the leader.
	• Contact (e.g., phone, pager, radio frequency, etc.)	Enter primary means of contacting the leader or contact person (e.g., radio, phone, pager, etc.). Be sure to include the area code when listing a phone number.
5 (continued)	• Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information	Provide special notes or directions specific to this resource. If required, add notes to indicate: (1) specific location/time where the resource should report or be dropped off/picked up; (2) special equipment and supplies that will be used or needed; (3) whether or not the resource received briefings; (4) transportation needs; or (5) other information.

ASSIGNMENT LIST (ICS 204)

1. Incident Name:	2. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM	3. Branch: Division:
B1700 Phenol Spill		Group: Diversion Group Staging Area:

4. Operations Personnel:

	Name	Contact Number(s)
Operations Section Chief:	James Eland, MST2	XXX-XXX-XXXX
Branch Director:		XXX-XXX-XXXX
Division/Group Supervisor:	John Dycha	XXX-XXX-XXXX

5. Resources Assigned:

Resource Identifier	Leader	# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information
	John Dycha			

6. Work Assignments:

Work out logistics for barge loading option.

7. Special Instructions:

8. Communications (radio and/or phone contact numbers needed for this assignment):

Name	/Function	Primary Contact: indicate cell, pager, or radio (frequency/system/channel)
John Dycha	/ Group leader	
	/	
	/	
	/	

9. Prepared by: Name: James A. Eland Position/Title: Ops. Sec. Chief Signature: James A. Eland

ICS 204	IAP Page	Date/Time: Date 01MAR2014 / 1755

ICS 204
Assignment List

Purpose. The Assignment List(s) (ICS 204) informs Division and Group supervisors of incident assignments. Once the Command and General Staffs agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The ICS 204 is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202), Operational Planning Worksheet (ICS 215), and the Operations Section Chief. It must be approved by the Incident Commander, but may be reviewed and initialed by the Planning Section Chief and Operations Section Chief as well.

Distribution. The ICS 204 is duplicated and attached to the ICS 202 and given to all recipients as part of the Incident Action Plan (IAP). In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 204 details assignments at Division and Group levels and is part of the IAP.
- Multiple pages/copies can be used if needed.
- If additional pages are needed, use a blank ICS 204 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Branch** **Division** **Group** **Staging Area**	This block is for use in a large IAP for reference only. Write the alphanumeric abbreviation for the Branch, Division, Group, and Staging Area (e.g., "Branch 1," "Division D," "Group 1A") in large letters for easy referencing.
4	**Operations Personnel** • Name, Contact Number(s) – Operations Section Chief – Branch Director – Division/Group Supervisor	Enter the name and contact numbers of the Operations Section Chief, applicable Branch Director(s), and Division/Group Supervisor(s).
5	**Resources Assigned**	Enter the following information about the resources assigned to the Division or Group for this period:
	• Resource Identifier	The identifier is a unique way to identify a resource (e.g., ENG-13, IA-SCC-413). If the resource has been ordered but no identification has been received, use TBD (to be determined).
	• Leader	Enter resource leader's name.
	• # of Persons	Enter total number of persons for the resource assigned, including the leader.
	• Contact (e.g., phone, pager, radio frequency, etc.)	Enter primary means of contacting the leader or contact person (e.g., radio, phone, pager, etc.). Be sure to include the area code when listing a phone number.
5 (continued)	• Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information	Provide special notes or directions specific to this resource. If required, add notes to indicate: (1) specific location/time where the resource should report or be dropped off/picked up; (2) special equipment and supplies that will be used or needed; (3) whether or not the resource received briefings; (4) transportation needs; or (5) other information.

ASSIGNMENT LIST (ICS 204)

1. Incident Name:	2. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM	3. Branch: Division:
B-1700 Phenol Spill		Group: Analytical Group

4. Operations Personnel:

	Name	Contact Number(s)
Operations Section Chief:	James Eland, MSTZ	XXX-XXX-XXXX
Branch Director:		XXX-XXX-XXXX
Division/Group Supervisor:	Steve Grisham	XXX-XXX-XXXX

Staging Area:

5. Resources Assigned:

Resource Identifier	Leader	# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information
	Steve Grisham			

6. Work Assignments:

Update sample plan / sampling points.

7. Special Instructions:

8. Communications (radio and/or phone contact numbers needed for this assignment):

Name	/Function	Primary Contact: indicate cell, pager, or radio (frequency/system/channel)
Steve Grisham	/ Group leader	
	/	
	/	
	/	

9. Prepared by: Name: James A. Eland Position/Title: ops. sec. chief Signature: J. A. Eland

ICS 204	IAP Page	Date/Time: Date 01MAR14 / 1747

ICS 204
Assignment List

Purpose. The Assignment List(s) (ICS 204) informs Division and Group supervisors of incident assignments. Once the Command and General Staffs agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The ICS 204 is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202), Operational Planning Worksheet (ICS 215), and the Operations Section Chief. It must be approved by the Incident Commander, but may be reviewed and initialed by the Planning Section Chief and Operations Section Chief as well.

Distribution. The ICS 204 is duplicated and attached to the ICS 202 and given to all recipients as part of the Incident Action Plan (IAP). In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 204 details assignments at Division and Group levels and is part of the IAP.
- Multiple pages/copies can be used if needed.
- If additional pages are needed, use a blank ICS 204 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Branch** **Division** **Group** **Staging Area**	This block is for use in a large IAP for reference only. Write the alphanumeric abbreviation for the Branch, Division, Group, and Staging Area (e.g., "Branch 1," "Division D," "Group 1A") in large letters for easy referencing.
4	**Operations Personnel** • Name, Contact Number(s) – Operations Section Chief – Branch Director – Division/Group Supervisor	Enter the name and contact numbers of the Operations Section Chief, applicable Branch Director(s), and Division/Group Supervisor(s).
5	**Resources Assigned**	Enter the following information about the resources assigned to the Division or Group for this period:
	• Resource Identifier	The identifier is a unique way to identify a resource (e.g., ENG-13, IA-SCC-413). If the resource has been ordered but no identification has been received, use TBD (to be determined).
	• Leader	Enter resource leader's name.
	• # of Persons	Enter total number of persons for the resource assigned, including the leader.
	• Contact (e.g., phone, pager, radio frequency, etc.)	Enter primary means of contacting the leader or contact person (e.g., radio, phone, pager, etc.). Be sure to include the area code when listing a phone number.
5 (continued)	• Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information	Provide special notes or directions specific to this resource. If required, add notes to indicate: (1) specific location/time where the resource should report or be dropped off/picked up; (2) special equipment and supplies that will be used or needed; (3) whether or not the resource received briefings; (4) transportation needs; or (5) other information.

ASSIGNMENT LIST (ICS 204)

1. Incident Name:	2. Operational Period:	3.
B 1700 Phenol Spill	Date From: Date Date To: Date Time From: HHMM Time To: HHMM	Branch: Division:

4. Operations Personnel:

	Name	Contact Number(s)
Operations Section Chief:	James Eland, MST2	XXX-XXX-XXXX
Branch Director:		XXX-XXX-XXXX
Division/Group Supervisor:	Ernie Schreiber	XXX-XXX-XXXX

Group: Treatment Group

Staging Area:

5. Resources Assigned:

Resource Identifier	Leader	# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information
	Ernie Schreiber			

6. Work Assignments:

Pumpout 403 basin through charcoal beds.

7. Special Instructions:

8. Communications (radio and/or phone contact numbers needed for this assignment):

Name	/Function	Primary Contact: indicate cell, pager, or radio (frequency/system/channel)
Ernie Schreiber	/ Group Leader	
	/	
	/	
	/	

9. Prepared by: Name: James A. Eland Position/Title: Ops. Sec. Chief Signature: James A. Eland

ICS 204	IAP Page	Date/Time: ~~Date~~ 01MAR14 / 1745

ICS 204
Assignment List

Purpose. The Assignment List(s) (ICS 204) informs Division and Group supervisors of incident assignments. Once the Command and General Staffs agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The ICS 204 is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202), Operational Planning Worksheet (ICS 215), and the Operations Section Chief. It must be approved by the Incident Commander, but may be reviewed and initialed by the Planning Section Chief and Operations Section Chief as well.

Distribution. The ICS 204 is duplicated and attached to the ICS 202 and given to all recipients as part of the Incident Action Plan (IAP). In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 204 details assignments at Division and Group levels and is part of the IAP.
- Multiple pages/copies can be used if needed.
- If additional pages are needed, use a blank ICS 204 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Branch** **Division** **Group** **Staging Area**	This block is for use in a large IAP for reference only. Write the alphanumeric abbreviation for the Branch, Division, Group, and Staging Area (e.g., "Branch 1," "Division D," "Group 1A") in large letters for easy referencing.
4	**Operations Personnel** • Name, Contact Number(s) – Operations Section Chief – Branch Director – Division/Group Supervisor	Enter the name and contact numbers of the Operations Section Chief, applicable Branch Director(s), and Division/Group Supervisor(s).
5	**Resources Assigned**	Enter the following information about the resources assigned to the Division or Group for this period:
	• Resource Identifier	The identifier is a unique way to identify a resource (e.g., ENG-13, IA-SCC-413). If the resource has been ordered but no identification has been received, use TBD (to be determined).
	• Leader	Enter resource leader's name.
	• # of Persons	Enter total number of persons for the resource assigned, including the leader.
	• Contact (e.g., phone, pager, radio frequency, etc.)	Enter primary means of contacting the leader or contact person (e.g., radio, phone, pager, etc.). Be sure to include the area code when listing a phone number.
5 (continued)	• Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information	Provide special notes or directions specific to this resource. If required, add notes to indicate: (1) specific location/time where the resource should report or be dropped off/picked up; (2) special equipment and supplies that will be used or needed; (3) whether or not the resource received briefings; (4) transportation needs; or (5) other information.

ASSIGNMENT LIST (ICS 204)

1. Incident Name:	2. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM	3. Branch: Division:
B1700 Phenol Spill		Group: Diversion Group

4. Operations Personnel:

	Name	Contact Number(s)
Operations Section Chief:	James Eland, MSTZ	XXX-XXX-XXXX
Branch Director:		XXX-XXX-XXXX
Division/Group Supervisor:	Kyle Graham	XXX-XXX-XXXX

Staging Area:

5. Resources Assigned:

Resource Identifier	Leader	# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information
	Kyle Graham		(979) 824-5530	

6. Work Assignments:

Evacuate 403 canal.

7. Special Instructions:

8. Communications (radio and/or phone contact numbers needed for this assignment):

Name	/Function	Primary Contact: indicate cell, pager, or radio (frequency/system/channel)
	/	
	/	
	/	
	/	

9. Prepared by: Name: James A. Eland Position/Title: Ops Sec. Chief Signature: James A. Eland

ICS 204	IAP Page	Date/Time: Date 01MAR14 / 1750

ICS 204
Assignment List

Purpose. The Assignment List(s) (ICS 204) informs Division and Group supervisors of incident assignments. Once the Command and General Staffs agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The ICS 204 is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202), Operational Planning Worksheet (ICS 215), and the Operations Section Chief. It must be approved by the Incident Commander, but may be reviewed and initialed by the Planning Section Chief and Operations Section Chief as well.

Distribution. The ICS 204 is duplicated and attached to the ICS 202 and given to all recipients as part of the Incident Action Plan (IAP). In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 204 details assignments at Division and Group levels and is part of the IAP.
- Multiple pages/copies can be used if needed.
- If additional pages are needed, use a blank ICS 204 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Branch** **Division** **Group** **Staging Area**	This block is for use in a large IAP for reference only. Write the alphanumeric abbreviation for the Branch, Division, Group, and Staging Area (e.g., "Branch 1," "Division D," "Group 1A") in large letters for easy referencing.
4	**Operations Personnel** • Name, Contact Number(s) – Operations Section Chief – Branch Director – Division/Group Supervisor	Enter the name and contact numbers of the Operations Section Chief, applicable Branch Director(s), and Division/Group Supervisor(s).
5	**Resources Assigned**	Enter the following information about the resources assigned to the Division or Group for this period:
	• Resource Identifier	The identifier is a unique way to identify a resource (e.g., ENG-13, IA-SCC-413). If the resource has been ordered but no identification has been received, use TBD (to be determined).
	• Leader	Enter resource leader's name.
	• # of Persons	Enter total number of persons for the resource assigned, including the leader.
	• Contact (e.g., phone, pager, radio frequency, etc.)	Enter primary means of contacting the leader or contact person (e.g., radio, phone, pager, etc.). Be sure to include the area code when listing a phone number.
5 (continued)	• Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information	Provide special notes or directions specific to this resource. If required, add notes to indicate: (1) specific location/time where the resource should report or be dropped off/picked up; (2) special equipment and supplies that will be used or needed; (3) whether or not the resource received briefings; (4) transportation needs; or (5) other information.

ASSIGNMENT LIST (ICS 204)

1. Incident Name:	2. Operational Period:	3.
B 1700 Phenol spill	Date From: 03MAR Date To: ~~Date~~ 04MAR Time From: ~~HHMM~~ 0900 Time To: ~~HHMM~~ 0900	Branch: Division: Group: Diversion Group Staging Area:

4. Operations Personnel:	Name	Contact Number(s)
Operations Section Chief:	James Eland, MSRT	XXX-XXX-XXXX
~~Branch Director:~~		XXX-XXX-XXXX
Division/Group Supervisor:	Kyle Graham	XXX-XXX-XXXX

5. Resources Assigned:				
Resource Identifier	Leader	# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information
	Kyle Graham		(979) 824-5530	

6. Work Assignments:

Dewater dorr pond #3.

7. Special Instructions:

8. Communications (radio and/or phone contact numbers needed for this assignment):

Name	/Function	Primary Contact: indicate cell, pager, or radio (frequency/system/channel)
Kyle Graham	/ On-Scene leader	(979) 824-5530
	/	
	/	
	/	

9. Prepared by: Name: James A. Eland Position/Title: Ops. Sec. chief Signature: James A. Eland

ICS 204	IAP Page	Date/Time: Date 01MAR2014 / 1735

ICS 204
Assignment List

Purpose. The Assignment List(s) (ICS 204) informs Division and Group supervisors of incident assignments. Once the Command and General Staffs agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The ICS 204 is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202), Operational Planning Worksheet (ICS 215), and the Operations Section Chief. It must be approved by the Incident Commander, but may be reviewed and initialed by the Planning Section Chief and Operations Section Chief as well.

Distribution. The ICS 204 is duplicated and attached to the ICS 202 and given to all recipients as part of the Incident Action Plan (IAP). In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms must be given to the Documentation Unit.

Notes:

- The ICS 204 details assignments at Division and Group levels and is part of the IAP.
- Multiple pages/copies can be used if needed.
- If additional pages are needed, use a blank ICS 204 and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Branch** **Division** **Group** **Staging Area**	This block is for use in a large IAP for reference only. Write the alphanumeric abbreviation for the Branch, Division, Group, and Staging Area (e.g., "Branch 1," "Division D," "Group 1A") in large letters for easy referencing.
4	**Operations Personnel** • Name, Contact Number(s) – Operations Section Chief – Branch Director – Division/Group Supervisor	Enter the name and contact numbers of the Operations Section Chief, applicable Branch Director(s), and Division/Group Supervisor(s).
5	**Resources Assigned**	Enter the following information about the resources assigned to the Division or Group for this period:
	• Resource Identifier	The identifier is a unique way to identify a resource (e.g., ENG-13, IA-SCC-413). If the resource has been ordered but no identification has been received, use TBD (to be determined).
	• Leader	Enter resource leader's name.
	• # of Persons	Enter total number of persons for the resource assigned, including the leader.
	• Contact (e.g., phone, pager, radio frequency, etc.)	Enter primary means of contacting the leader or contact person (e.g., radio, phone, pager, etc.). Be sure to include the area code when listing a phone number.
5 (continued)	• Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information	Provide special notes or directions specific to this resource. If required, add notes to indicate: (1) specific location/time where the resource should report or be dropped off/picked up; (2) special equipment and supplies that will be used or needed; (3) whether or not the resource received briefings; (4) transportation needs; or (5) other information.

COMMUNICATIONS LIST (ICS 205A)

1. Incident Name:	2. Operational Period:	Date From: ~~3/1/2014~~ 3/2/2014	Date To: 3/4/2014
B-1709 PHENOL SPILL		Time From: ~~0700~~ 0700	Time To: ~~1800~~ 1800

3. Basic Local Communications Information:

Incident Assigned Position	Name (Alphabetized)	Method(s) of Contact (phone, pager, cell, etc.)
Barges Logistic Chief	John DYCHA	(281) 633-6455
SAFETY Officer	Jim SUTHERLAN	(979) 230-8355
Immediate Response	LARRY DAVIS	(979) 482-4628
—	Ronnie Shoemaker	(979) 482-4648
—	Toby Crow	(979) 417-1623
OPS. Section Chief	MATT SCHARR	(979) 824-8523
Logistic Section Chief	Debbie SHelton	(979) 248-6450
—	Travis Jackson	(832) 385-8266
Finance Section Chief	STeve baker	(979) 824-5225
Public Information	David winder	(979) 238-7623
Unified Command (Ops)	MARK KuetTell	(979) 417-3112
— (EPA)	Adam Adams	(214) 202-6952
— (TCEQ)	Faith COTTON	(713) 540-1735
— (USCG)	Valerie Boyd, LCDR	(409) 682-1266
— (Ops)	Jay CrocheT	(832) 221-0004
Diversion Group	KYLE Graham	(979) 824-5530

4. Prepared by: Name: LTJG NOLAN	Position/Title: DOCUMENTATION LEADER	Signature: LTJG
ICS 205A | IAP Page	Date/Time: Date	

ICS 205A
Communications List

Purpose. The Communications List (ICS 205A) records methods of contact for incident personnel. While the Incident Radio Communications Plan (ICS 205) is used to provide information on all radio frequencies down to the Division/Group level, the ICS 205A indicates all methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

Preparation. The ICS 205A can be filled out during check-in and is maintained and distributed by Communications Unit personnel. This form should be updated each operational period.

Distribution. The ICS 205A is distributed within the ICS organization by the Communications Unit, and posted as necessary. All completed original forms must be given to the Documentation Unit. If this form contains sensitive information such as cell phone numbers, it should be clearly marked in the header that it contains sensitive information and is not for public release.

Notes:

- The ICS 205A is an optional part of the Incident Action Plan (IAP).
- This optional form is used in conjunction with the ICS 205.
- If additional pages are needed, use a blank ICS 205A and repaginate as needed.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Basic Local Communications Information**	Enter the communications methods assigned and used for personnel by their assigned ICS position.
	• Incident Assigned Position	Enter the ICS organizational assignment.
	• Name	Enter the name of the assigned person.
	• Method(s) of Contact (phone, pager, cell, etc.)	For each assignment, enter the radio frequency and contact number(s) to include area code, etc. If applicable, include the vehicle license or ID number assigned to the vehicle for the incident (e.g., HAZMAT 1, etc.).
4	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

MED PLAN

Angleton/Danbury Hospital
265-3368
849-7721
132 Hospital Drive
Angleton, TX 77515

Brazosport Regional Hospital – Lake Jackson
PAY PHONE IN EMERG WAITING ROOM:
297-9145
100 Medical Drive
Lake Jackson, TX 77566
Dow Ring Down #: 297-6482
FAX #: 299-2878

Ambulance Run Report Log:

Incident Type:
Location:
Number of Patients:
Chief Complaint:
Caller Name:
Caller Phone #:
Time: n/a
Patient Information:
Patient Company:
Product Involved:
Time Site Leadership Notification made:
Time amb in service:
Time amb on scene:
Time amb departed scene:
Patient transferred to:
Transfer code:
Time & Name of Dow Nurse Notification:
Patient Refusal Y/N:
Time amb at facility:
Time amb departed facility:
Time Ambulance Run Notification made:
5-6's called?:
x2112 Called?:
HQ's called 5-6's Y/N:
Ambulance Run Sheet Times:
Responder Personnel:
Additional Info:

Environmental Log:

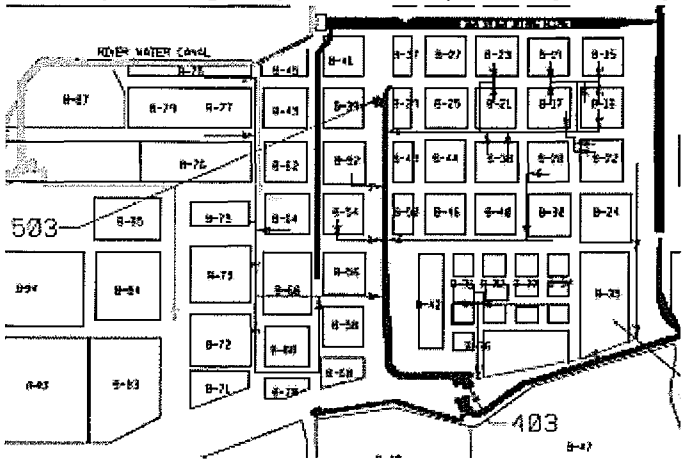
Incident Type:
Level:
Caller Name:
Call back #:
Location:
Time Notified:
Time Occurred (if different):
Company Affilation:
Product:
Amount:
Duration:
Wind Direction and Speed:
Temp:
5-6's Called, Y/N:
HQ's called 5-6's Y/N:
Horns sounded: Y/N:
Time Site Leadership Notification made:
Spill, Y/N:
Contained, Y/N:
How Contained:
Team Leaders notified:
Units Responding:
Time first Unit on scene:
Is Ambulance Run related Y/N:
Location Ambulance Runs:
Total Number of Patients:
Chief Complaint:
SEM Notified, Y/N:
Time SEM Notified:
XpressAlert Acctivation:
What Group or Personnel contacted?:
I/C initiated by and time:
CAER Recorder "Off Line":
CAER Message Changed, Y/N:
CAER What Message put on Recorder:
CAER Recorder back "On Line":
CAER Recorder Basic Message:
CAER Sirens and Time of Activation:
CAER BCSO and Surrounding PD's Notifiction:
CAER Road Blocks requested:
CAER EOPC/EOC Notification and Activation:
CAER P/R Notification:
CAER FirstCall Activation:
Time up or down-graded and Level:
Mutual Aid Request:
By Who and Contact Info:
Who approved Mutual Aid?:
Time All Clear:
Time I/C standing down:
Time Units clear of scene:

Additional Info:

SAFETY MESSAGE/PLAN (ICS 208)

1. Incident Name:	2. Operational Period:	Date From: 3/2/2014	Date To: 3/4/2014
B-1700 Phenol Spill		Time From: 0900	Time To: 0900

3. Safety Message/Expanded Safety Message, Safety Plan, Site Safety Plan:



The existing Hot Zone is located on the South side of the B-1700 block along Entrance Road. The road is currently closed at the West and East end of the block.

Any non-Dow personnel must be escorted by a Dow employee or a contractor representative at all times for safety. In the event of an injury, exposure, or emergency, Dow Chemical Emergency Services must be contacted. From a Dow Plant phone, dial "66666" and Emergency Services will be dispatched. Emergency Services may be reach for emergency response on a cell phone by dialing 979-238-6666.

Any personnel or visitors must check in with the Deputy Operations Section Chief or his designee before entering the hot zone.

Prior to any work commencing, the opropriate Dow personnel must be contacted for a Safe / Hot work permit per Dow procedures and policies.

4. Site Safety Plan Required? Yes will No ☐

Approved Site Safety Plan(s) Located At:

5. Prepared by: Name: MATT SCHAAK Position/Title: ESNS OPS LEADER Signature: _____

ICS 208	IAP Page	Date/Time: 03/04/2014 1825

ICS 208
Safety Message/Plan

Purpose. The Safety Message/Plan (ICS 208) expands on the Safety Message and Site Safety Plan.

Preparation. The ICS 208 is an optional form that may be included and completed by the Safety Officer for the Incident Action Plan (IAP).

Distribution. The ICS 208, if developed, will be reproduced with the IAP and given to all recipients as part of the IAP. All completed original forms must be given to the Documentation Unit.

Notes:
- The ICS 208 may serve (optionally) as part of the IAP.
- Use additional copies for continuation sheets as needed, and indicate pagination as used.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Safety Message/Expanded Safety Message, Safety Plan, Site Safety Plan**	Enter clear, concise statements for safety message(s), priorities, and key command emphasis/decisions/directions. Enter information such as known safety hazards and specific precautions to be observed during this operational period. If needed, additional safety message(s) should be referenced and attached.
4	**Site Safety Plan Required?** Yes ☐ No ☐	Check whether or not a site safety plan is required for this incident.
	Approved Site Safety Plan(s) Located At	Enter where the approved Site Safety Plan(s) is located.
5	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

1. Incident Name B 1700 Phenol Release	2. Operational Period (Date/Time) From: 0900 02MAR14 To: 0900 04MAR14	DAILY MEETING SCHEDULE ICS 230-CG

3. Meeting Schedule (Commonly-held meetings are included)

Date/ Time	Meeting Name	Purpose	Attendees	Location
3/2/14 1400	Unified Command Objectives Meeting	Review/ identify objectives for the next operational period.	Unified Command members	
3/2/1500	Command & General Staff Meeting	IC/UC gives direction to Command & General staff including incident objectives and priorities	IC/UC, Command & General Staff	
	Tactics Meeting	Develop/Review primary and alternate Strategies to meet Incident Objectives for the next Operational Period.	PSC, OSC, LSC, RESL & SITL	
	Planning Meeting	Review status and finalize strategies and assignments to meet Incident Objectives for the next Operational Period.	Determined by the IC/UC	EOC
	Operations Briefing	Present IAP and assignments to the Supervisors / Leaders for the next Operational Period.	IC/UC, Command & General Staff, Branch Directors, Div/Gru Sups., Task Force/Strike Team Leaders and Unit Leaders	EOC

4. Prepared by: (Situation Unit Leader) MSTR STANKENG

Date/Time 01MAR2014 1625

DAILY MEETING SCHEDULE (ICS 230-CG)

Purpose. The Daily Meeting Schedule records information about the daily scheduled meeting activities.

Preparation. This form is prepared by the Situation Unit Leader and coordinated through the Unified Command for each operational period or as needed. Commonly-held meetings are already included in the form. Additional meetings, as needed, can be entered onto the form in the spaces provided. Time and location for each meeting must be entered. If any of these standard meetings are not scheduled, they should be crossed out on the form.

Distribution. After coordination with the Unified Command, the Situation Unit Leader will duplicate the schedule and post a copy at the Situation Status Board and distribute to the Command Staff, Section Chiefs, and appropriate Unit Leaders. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Meeting Schedule	For each scheduled meeting, enter the date/time, meeting name, purpose, attendees, and location. Note: Commonly-held meetings are included in the form. Additional meetings, as needed, can be entered onto the form in the spaces provided. Time and location for each meeting must be entered. If any of the standard meetings are not scheduled, they should be deleted from the form (normally the Situation Unit Leader).
4.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

Boyd, Valerie A LCDR

From: Brian.Kyle@noaa.gov on behalf of Brian Kyle - NOAA Federal [Brian.Kyle@noaa.gov]
Sent: Saturday, March 01, 2014 9:40 PM
To: _NWS SR-HGX.Partners
Subject: Weather issues we're looking at Sunday/Sunday night

Severe Weather
A cold front will cross southeast Texas on Sunday afternoon and early evening. The front will trigger scattered to numerous showers

and thunderstorms. Should the warm layer of air...or cap...currently in place erode...some of the storms could become severe. Damaging winds...isolated tornadoes and hail would then be possibilities.
The greater chance for severe weather will be north of a brenham to conroe to livingston line. Time period would be from roughly noon

across extreme north to mid to late evening beaches.

http://www.srh.noaa.gov/images/fxc/hgx/graphicast/image_full2.jpg

Winter Weather
Temperatures will rapidly drop in the wake of the front. Some locations north of a Brenham-Livingston line could see readings fall to

near freezing during the evening hours as lingering light rain or drizzle

begins to depart. Should this occur...a brief 3 to 5 hour window of freezing rain or drizzle would be a possibility from roughly 8 pm sunday night to
1 am monday morning. Since we have seen warm temperatures the past couple days there is a good possibility very little will actually accumulate on roads due to the warm ground and brief window should precipitation actually fall during this time period. Always worth watching

bridges though, especially for lingering puddles from earlier rain during the day.

We will continue to monitor this situation...especially in the more favored location around the Lake Livingston area.

Regards,


RIVER WATER CANAL
503
403
WASTE WATER TREATMENT PLANT
LEGEND
HEADER SYSTEM
EFFLUENT
CONTRIBUTING BLOCKS

Operational Meeting Update: 3/3/14 3pm

Supplement to the ICS 202 for the Operational Period March 2, 9am thru March 4, 9am.
Section 4: Operational Period Command Emphasis

Situational Update – Calculations show contaminated water volume is ~ 20 million gallons.
Containment – Completed

- Refined numbers: 46,500lbs = 5,314 gallons
- Hot Zone cleanup started. Collecting water in Frac Tank.

Diversion: Clean Water
East side Plt B – Going to outfall 102: 1 pumps for SE B-15
– Going to outfall 403: 2 pumps at B-13 TB, 1 Pump at NW corner B-13
West side Plt B – Dams in place. High spots preventing flow to the west. Removed to improve flow.

403 Basin Decontamination – Pumping fresh water through the basin.
Samples in the basin at 3 ppm; and 003 outfall continues to be Non-Detect.

403 Contaminated Water Evacuation: start documenting this on the (ISC 209)
B-300 Dorr Pond – # 3 pond emptied waiting to start PO transfer line

1. **Sludge Line** – Pumping started 3/3 at 16:30 at ~500 gpm [total 500 Mgallons]
2. **PO Hot water pipeline** – Hot tap will be completed by 16:00. Estimated flow will be 6 – 7 Mgpm

ON-HOLD: Plant A Storage (6 MM gallons): 4 days out to complete

1. **Pipeline to Plt A (~800,000 gpd)**– need fab pipe to run across sea water canal, other crossings
2. **Cumen Tanks** – pulled roof and completed inspection. Tank is good.
3. **Barges** – on-going and will coordinate all activities through coast guard.

B-47 Plant B Storage: 44 MM gallons. Routing Defined. Need to document procedures for commissioning and operation. Have Coast Guard resources on-site for ~~hydro and~~ operation.

Treatment – On-Hold. Concentrate resources on primary objective.

1. **Siemens**: 600 gpm: North side of 403 Basin. Vessels are set on rig mats.
2. **Baker**: 2 x 600 gpm: Laydown yard. Preparing site on South side of 403 basin for rig mats

Cost Tracking – Eric Mach has joined our team. Send him all information on WO & Purchase orders

- Tracking time for Dow people working on this event.

Cooling Towers – Need to cycle other CTs to keep all systems good.

Analytical – Data is stabilizing with minimal changes.

Weather: Rain Forecast 60% tonight. Tuesday 70% chance with steady rain in the morning (1/2")

Unified Command Approval Signatures:

Valerie Boyd USCG
Mark Kuttler Dow IC

Operational Meeting Update: 3/3/14 9:00

Supplement to the ICS 202 for the Operational Period March 2, 9am thru March 4, 9am.
Section 4: Operational Period Command Emphasis

Situational Update – Calculations show contaminated water volume is ~ 20 million gallons.

Containment – Completed

- Refined numbers: 46,500lbs = 5,314 gallons
- Hot Zone cleanup started. Collecting water in Frac Tank.

Diversion:

Clean Water – Going to outfall 102: 2 pumps at B-13, 1 Pump at NW corner B-13,
– Going to outfall 403: 1 pumps for SE B-15

403 Basin Decontamination – Pumped out based to remove contaminated water (Conc. in btm of empty basin was 50 ppm). Refilling with clean water from the east (Conc. is at 10 – 20 ppm). Will put back in service at 1 – 2 Mgpm. Once this reaches the 003 outfall, conc will be below 0.5 ppm

403 Contaminated Water Evacuation:

B-300 Dorr Pond - # 3 pond about 50% emptied. Running 3 pumps. #4 pond dewatered.

1. **Sludge Line –** Completed tie points this morning. Start pumping this afternoon
2. **PO Hot water pipeline** – Hoses being finalized from B-13 to Dorr pond. Hot tap line today. Estimated flow will be 6 – 7 Mgpm

Plant A Storage (6 MM gallons): 4 days out to complete

1. **Pipeline to Plt A (~800,000 gpd)**– need fab pipe to run across sea water canal, other crossings
2. **Cumen Tanks** – pulled roof and completed inspection. Tank is good.
3. **Barges** – on-going and will coordinate all activities through coast guard.

B-47 CAMU Storage: 44 MM gallons

Treatment – Carbon Beds: 24 hour soak time required to maximize effectiveness. Start soaking as soon as vessels are set.

1. **Siemens**: 600 gpm: North side of 403 Basin. Vessels are set on rig mats.
2. **On-Hold - Baker**: 2 x 600 gpm: Laydown yard. Preparing site on South side of 403 basin for rig mats
3. **Long term**: once 403 canal is back in service, carbon beds will be moved to Dorr ponds to treat contained contaminated material.

Cost Tracking – Eric Mach has joined our team. Send him all information on WO & Purchase orders

- Tracking time for Dow people working on this event.

Cooling Towers – Need to cycle other CTs to keep all systems good.

Analytical – getting round of samples this morning.

Weather: Rain Forecast 60 – 90% between 20:00 – 24:00. Continuing work to segregate contaminated 403 canal.

44 million gallon storage capacity south of B-403 outfall

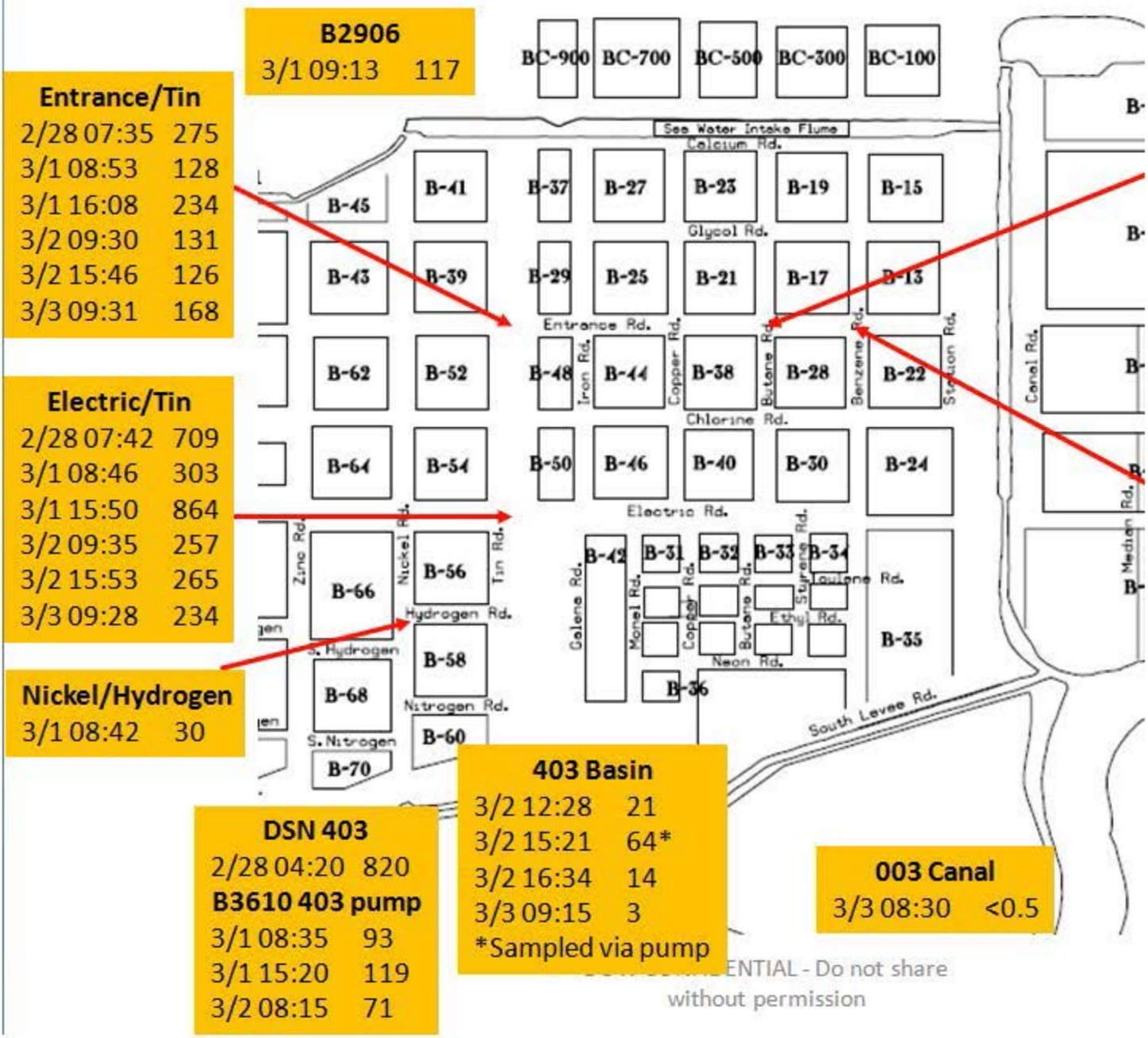
- 12 inch Diesel pumps (3 will be installed – moved from Dorr pond dewatering)
- 12 inch Flanged flex hose (2 lines will be installed)

Walzer, Thomas

From: Schmidt, Carla (CJ) <CJSchmidt@dow.com>
Sent: Monday, March 03, 2014 1:07 PM
To: Neff, Bart (BW); Horsch, Steven (SE); Modtland, Curt (CD); Kuettel, Mark (MB); Reed, Chris (CJ); Grisham, Steve (JS)
Subject: LC results for ditch samples 3/3 AM sampling

Ditch samples seem fairly consistent in concentration now. The sample labeled as 003 canal was <0.5ppm phenol. - Carla

LC results only for phenol in ppm (wt/wt)



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	Units			ppm	ppm
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2793-031	3/03/14 9:28 Tin & Electric				
2793-032	3/03/14 9;31 Tin & Entrance				
2793-033	3/03/14 9:36 Butane & Entrance				
2793-034	3/03/14 8:30 003 Canal	3/3/2014	11:00 AM		

From: Schmidt, Carla (CJ)
Sent: Sunday, March 02, 2014 7:02 PM
To: Neff, Bart (BW); Horsch, Steven (SE); Modtland, Curt (CD); Kuettel, Mark (MB); Reed, Chris (CJ); Grisham, Steve (JS)
Subject: LC results for ditch samples 3/2 PM sampling

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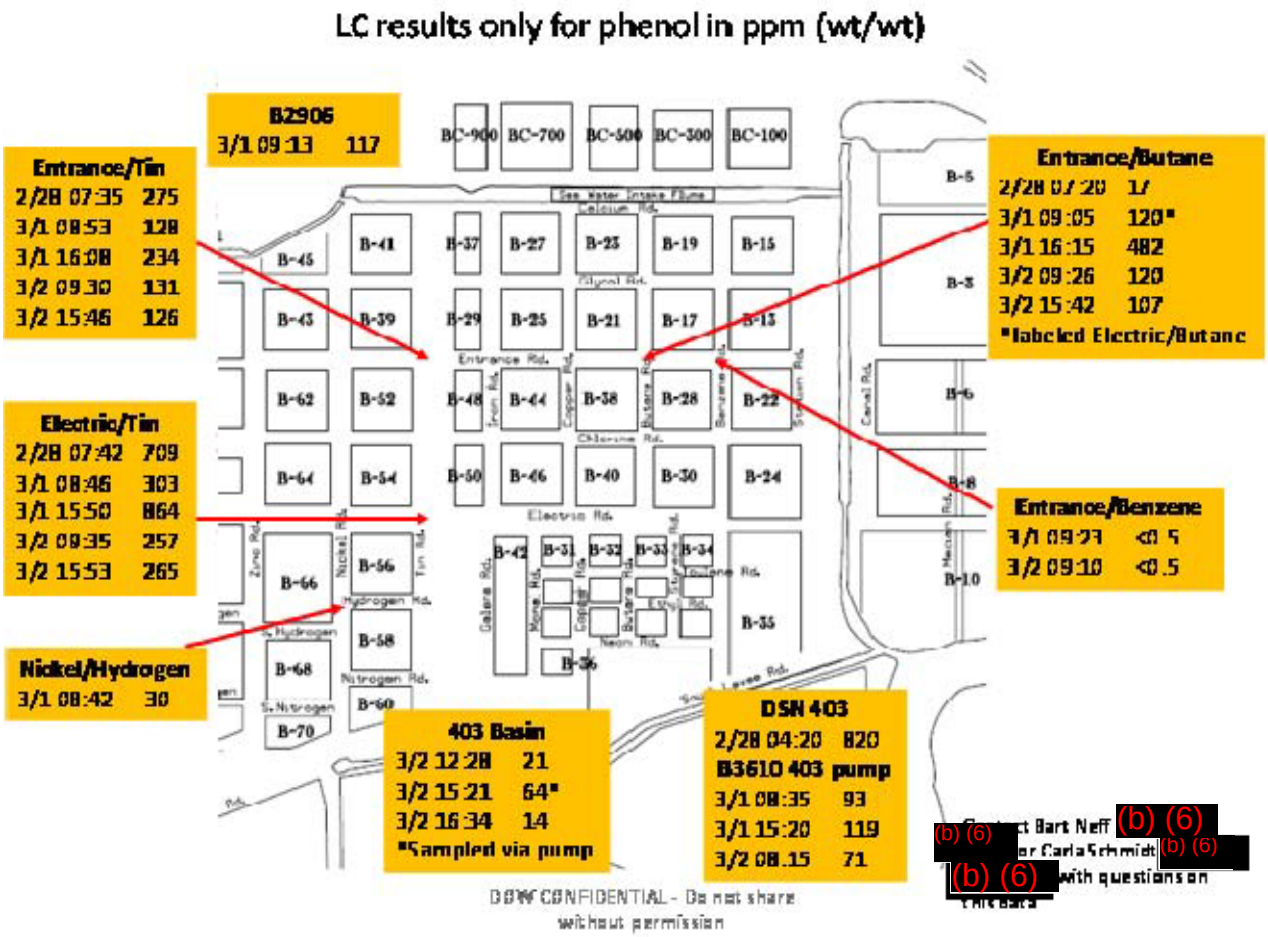
Carla



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2793-004	2/28/14 7:42 a Electric @ Tin			607	765	709	
2793-005	2/28/14 7:55 a DSN403 Top of Canal			586	779	723	
2793-006	3/01/14 9:23 Benzene and Entrance	3/1/2014	9:30 AM	7	N.D.	<0.5	NMR limit of detection estimated at 10ppm depending on sample matrix
2793-007	3/01/14 9:13 B2906			102	117	117	
2793-008	3/01/14 9:05 Butane & Electric (believed to be Entrance rather than Electric per Grisham)			108	124	120	
2793-009	3/01/14 8:42 Nickel & Hydrogen			31	25	30	
2793-010	3/01/14 8:46 Electric & Tin			247	324	303	
2793-011	3/01/14 8:35 B3610 403 pump			73	93	93	
2793-012	3/01/14 8:53 Entrance & Tin			114	133	128	
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Walzer, Thomas

From: Schmidt, Carla (CJ) <CJSchmidt@dow.com>
Sent: Monday, March 03, 2014 1:07 PM
To: Neff, Bart (BW); Horsch, Steven (SE); Modtland, Curt (CD); Kuettel, Mark (MB); Reed, Chris (CJ); Grisham, Steve (JS)
Subject: LC results for ditch samples 3/3 AM sampling

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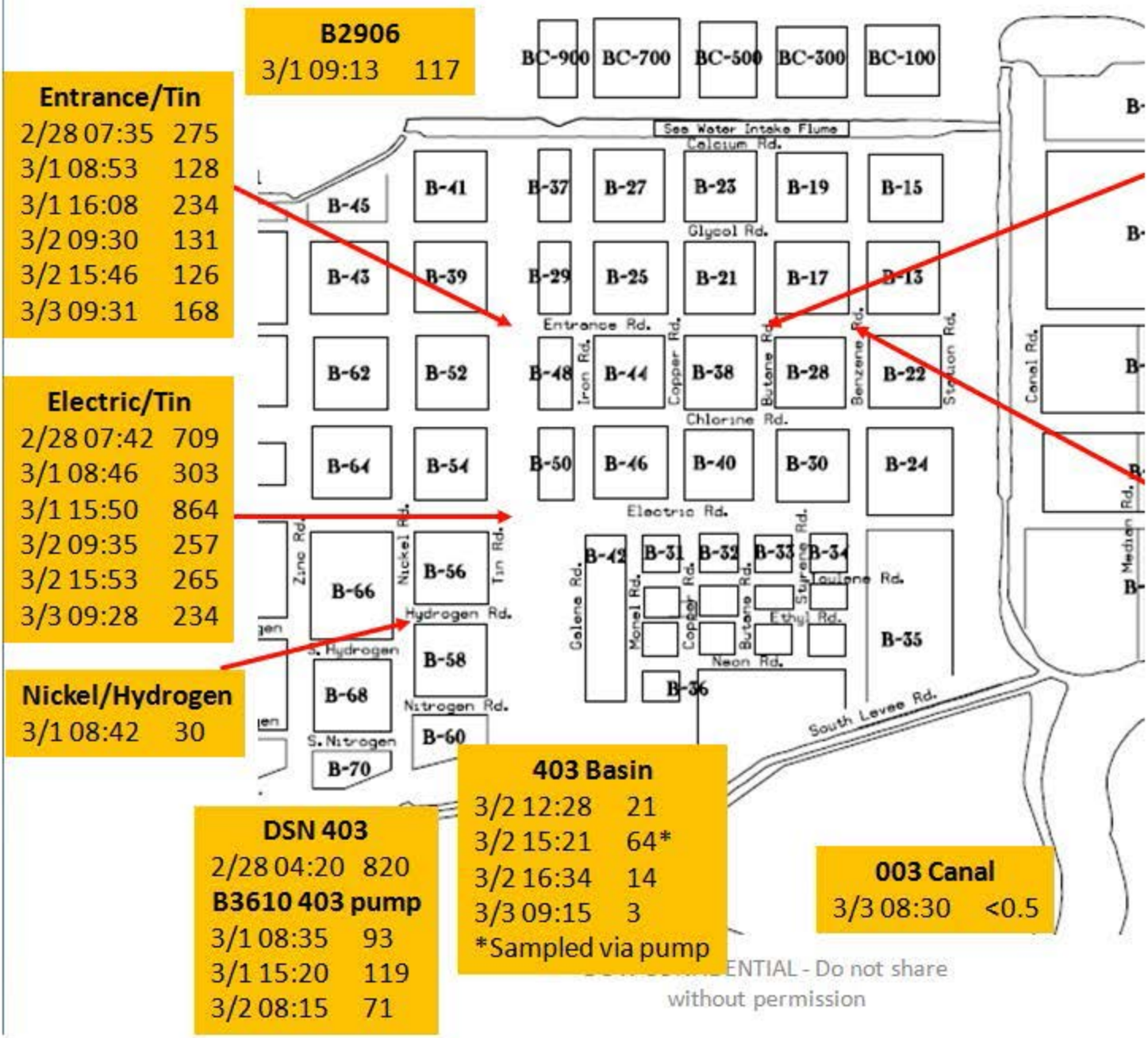

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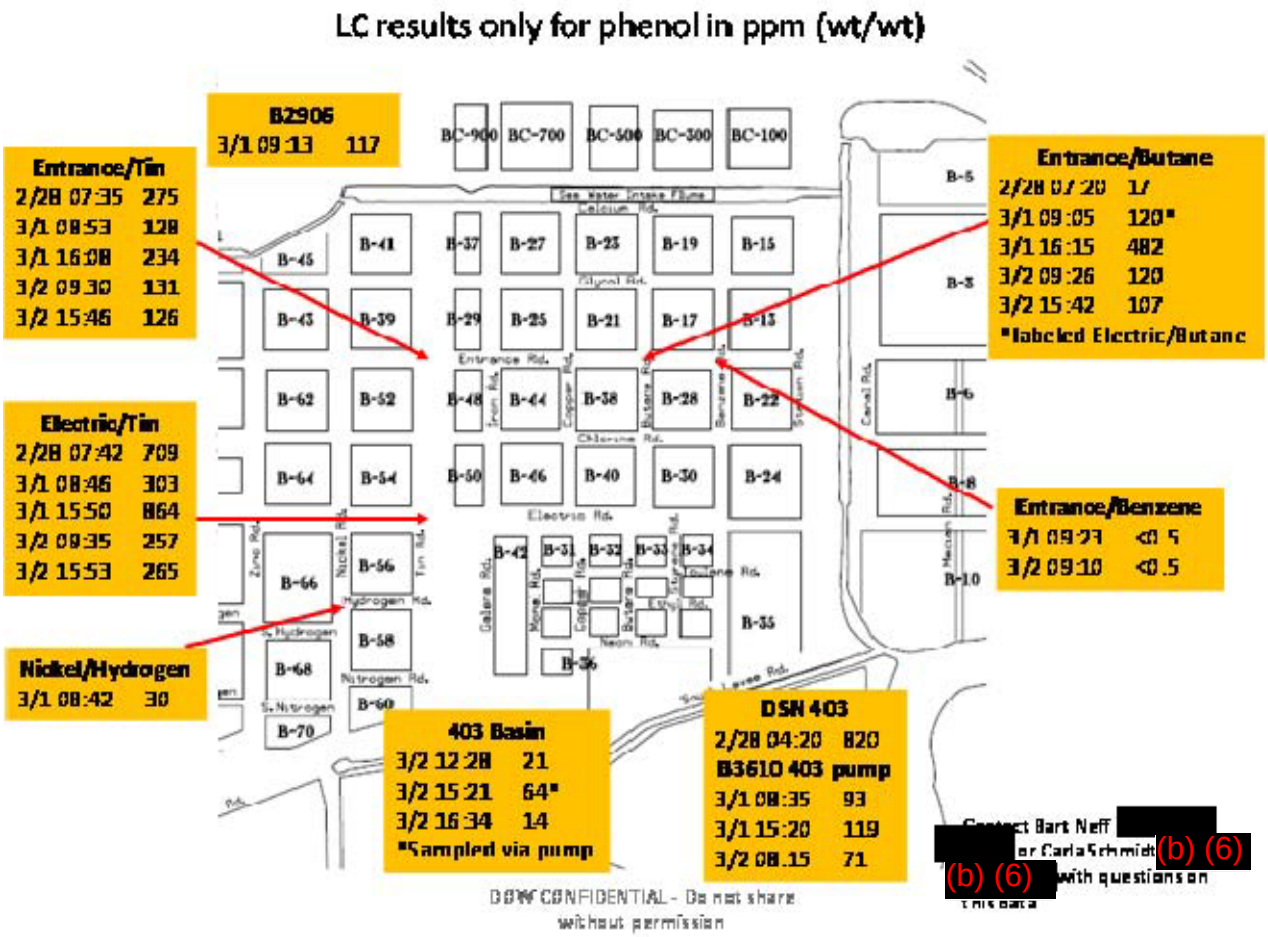

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2793-029	3/02/14 16:34 403 Grab sample			16	14	14	


03/04/2014


03/04/2014

3/5/14 1500 Update

Clean Water Pumping:

B-13/B-15: Add additional pump for B15 flow- today

West End Plt B: Added 2 diesels

Evacuating contaminated water from 403 Canal:

- Dorr pond
- B-47 B-Pond
- Rate of Level Drop

Run 3rd Line to B-Pond

- Leena K. RTO at 8PM
- Evaluate moving 3rd pump to upstream location
- Add flow meters to pumps – Kristin

Canal depth survey: Dam- North to Electric Rd.

- Data for pump suction
- Use fish team
- Assigned to Dow Team

B-17 Hot Zone: Jay Crochet

1. Empty & remediate
2. ~~Set up pumps [coming from hot tap pumps – need 2 pumps] to add clean water flush~~

Super Flush Strategy:

-

B-23 Sea Water by-pass: 1 pump/Thursday after 5PM

1. Move hot tap pump to B-23 (after Dorr pond full)
2. Lay hoses (Length suction / 150 ft discharge)

Dam Building (new)

3/5/14 -> None

Sampling Plan – Grisham/Schmidt

- Review Data
- Laterals

3/6/14 1500 Update: B-1700 Phenol Spill

Clean Water Pumping:

B-13/B-15: 3 pumps diverting to 102 outfall. 2 pumps pushing water south to 403 thru east ditch. PGA added 1300 gpm last night, which is being managed.

PO : planned SHDN on Sunday night Midnight – 6 am. Will increase water to ditch by 6Mgpm, but looking at options to put water to B-308 reservoir via lamella line.

West End Plt B: holding with no diesels running (2 on standby)

Evacuating contaminated water from 403 Canal:

- Dorr pond – on hold. 1 million gallons capacity left (3 hrs pumping).
- B-47 B-Pond: 2 pumps each at 3Mgpm. Pond is going up at 2 – 3 inches per hour. 19 total feet available with 7 already in pond.
- Rate of Level Drop: 2.6 inches per hr drop rate. Currently at 5 ft

Pump Optimization & 3rd Line to B-Pond

- Moved 2 pumps 150 yards to the west to the deepest spot in canal
- Challenged with NPSH. Evaluating option to improve NPSHa
- Monitoring flow meters at steel pipe. Taking flow readings every couple hours.

Canal depth survey: Dam- North to Electric Rd.

- Data for pump suction – identified deepest section is at the bend.

B-17 Hot Zone: Jay Crochet

1. Empty & remediate. Emptied water to frac tank. Started remediation of dirt in canal. Will complete testing of dirt this evening. Goal to complete all remediation tonight.

Super Flush Strategy:

- Finalizing plans for 3 flushes

B-23 Sea Water by-pass: 1 pump was set Wednesday after 5PM. Ready when needed.

Dam Building (new)

None

Sampling Plan – Grisham/Schmidt:

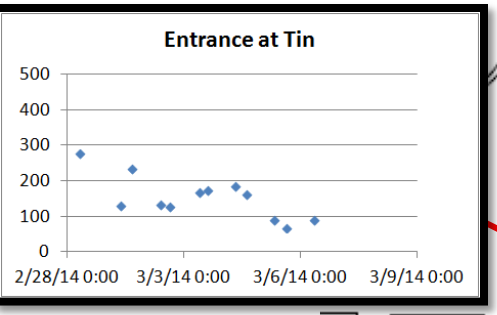
- Review Data – ND in 403 and 003.
- Lateral data collected

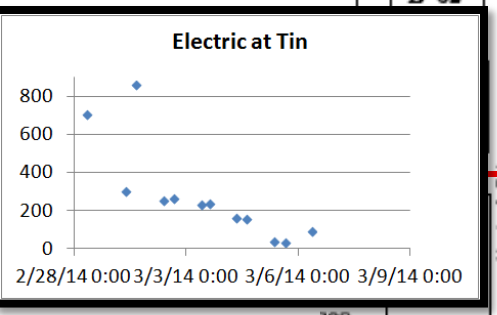
Integration: no significant changes. PO shutting down on Sunday for a repair.

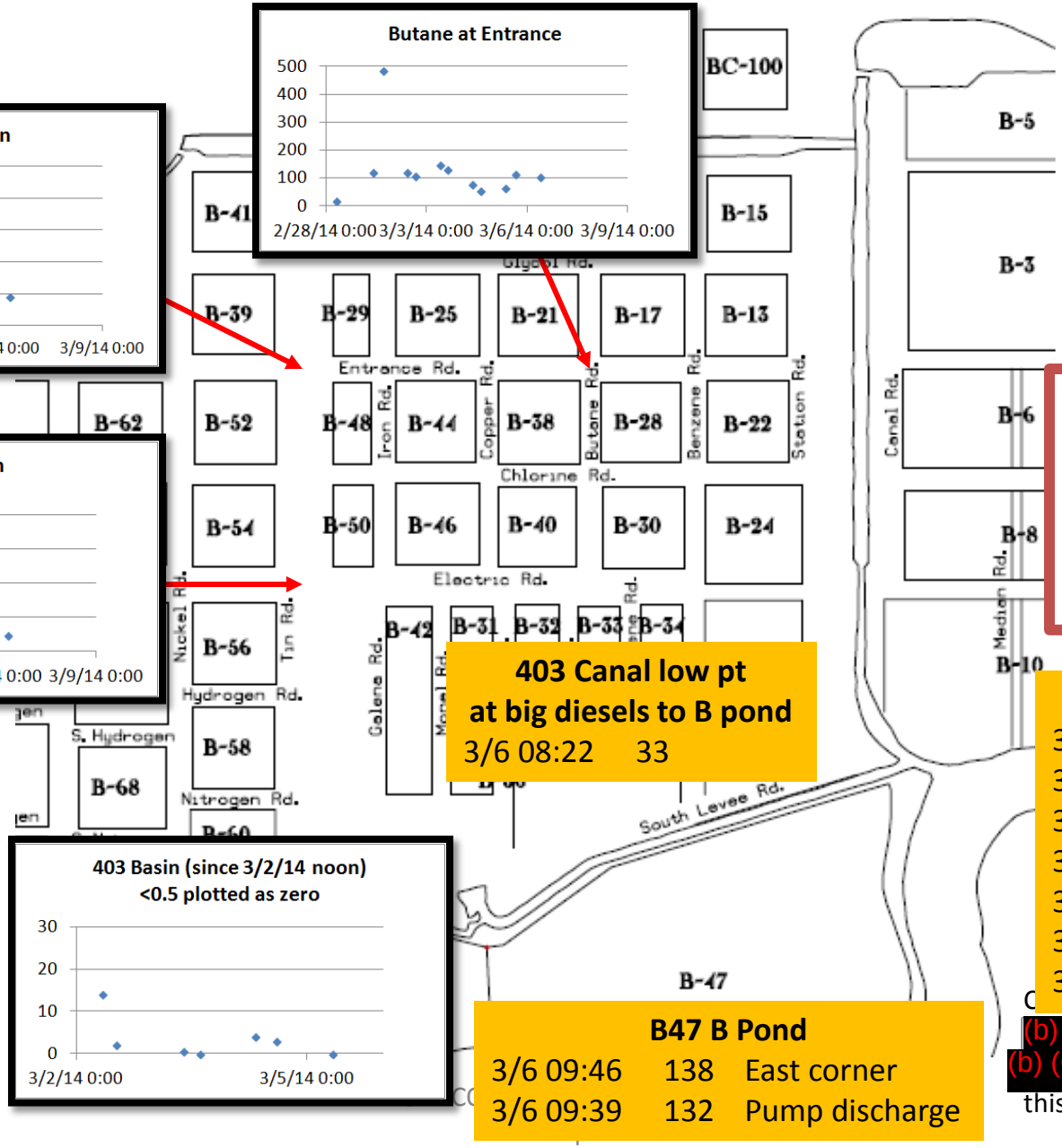
Cooling Towers: 3 towers blowing down and managing the site with total of 200 gpm.

LC results only for phenol in ppm (wt/wt)

Updated with 3/6 AM samples (older data not included)







B300 Pond
3/6 08:56 137

Inside Hot Zone Dam
3/5 09:40 4778

B1700 Ditch outside hot zone dam
3/5 ~9AM 175

403 Canal low pt at big diesels to B pond
3/6 08:22 33

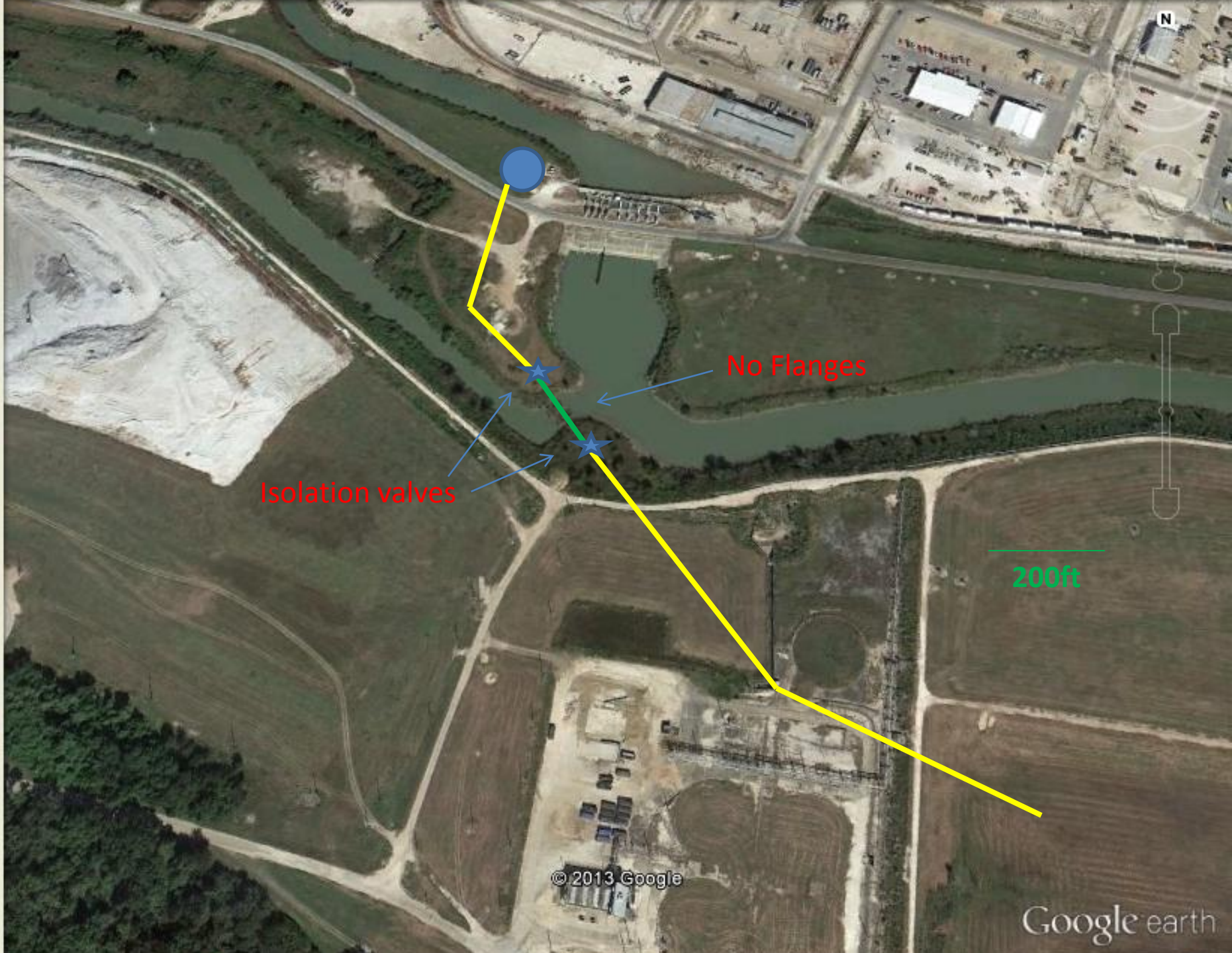
003 Canal

3/3 08:30	<0.5
3/3 15:00	<0.5
3/4 07:35	<0.5
3/4 14:28	not detected
3/5 08:20	<0.5
3/5 15:35	<0.5
3/6 08:01	N.D.

B47 B Pond

3/6 09:46	138	East corner
3/6 09:39	132	Pump discharge

C
(b) (6) or Carla Schmid (b) (6)
(b) (6) with questions on this data


No Flanges
Isolation valves
200ft
© 2013 Google
Google earth

3/7/14 1500 Update: B-1700 Phenol Spill

Clean Water Pumping: Managing all clean water – 5 diesels. No major issues.

PO : planned SHDN on Sunday night Midnight – 6 am. Will increase water to ditch by 6Mgpm, but looking at options to put water to B-308 reservoir via lamella line.

Evacuating contaminated water from 403 Canal:

- Canal reaching low level, mid morning, 12" diesels starting to vortex this morning.
- Completed 1st Flush – water from the Electric Rd lateral
- Restarted flow to Dorr ponds (3 pumps). Can pump until ~ 6 to 8PM
- B-47 B-Pond: (3 pumps) hour.
- Rate of Level Drop: 8 inches drop since 1200. Currently at 2.6 ft
- Sand Bar (150 ft North of 12" diesels) – created channel to drain canal

B-17 Hot Zone: Jay Crochet

1. Remediation completed.

Super Flush Strategy:

- Flush completed from Electric Road
- 2nd Flush will be super flush from B-17 clean water
-

B-23 Sea Water by-pass: 1 pump was set Wednesday after 5PM. Ready when needed.

The Dam Team

- Added 3 Dams at Entrance and Butane (east and west side), Entrance and Copper. Fill with fresh water from the B-23 side
- Removed the Electric dam
- Next – remove the B-17 dams

Sampling Plan – Grisham/Schmidt:

- Review Data – ND in 403 and 003.

Integration: no significant changes. PO shutting down on Sunday for a repair.

Cooling Towers: CT blowing down and managing the site with total of 200 gpm.

3/8/14 1500 Update: B-1700 Phenol Spill

Clean Water Pumping: Managing all clean water – 5 diesels. Water is high. Adding 6th diesel. Can reduce seawater use by PGA. Weste end ran 2 diesels at B-68.

PO : planned SHDN on Sunday night Midnight – 6 am.

Evacuating contaminated water from 403 Canal:

- Completed 3 flushes.
- Water was clean in ditch (Morning Data)
- Released water from the west ditch to fill canal
- Did some sampling and found 21 ppm between the 403 diesel and 403 dam

B-17 Hot Zone: Jay Crochet

1. Remediation completed in canal
2. Working under pipe rack. Installed diversion berm to a sump. Cover with plastic.
3. Transferring a Frac tank.

B-23 Sea Water by-pass: 1 pump was set Wednesday after 5PM. Ready when needed.

The Dam Team

- Added 2 Dams at B-21, filling with fresh water
- West side (at power 9) Partial removal and rebuilt.
- Next objective – remove B-403 muck and dam

Sampling Plan – Grisham/Schmidt:

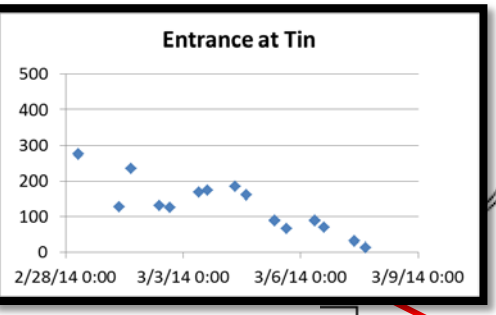
- Review Data – ND in 403 and 003.

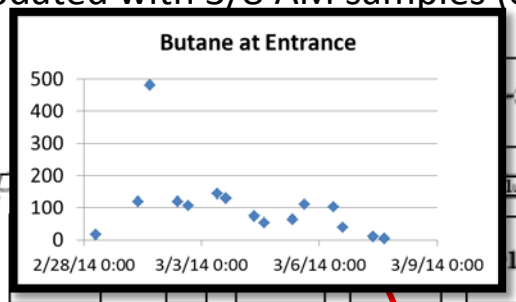
Integration: no significant changes. PO shutting down on Sunday for a repair.

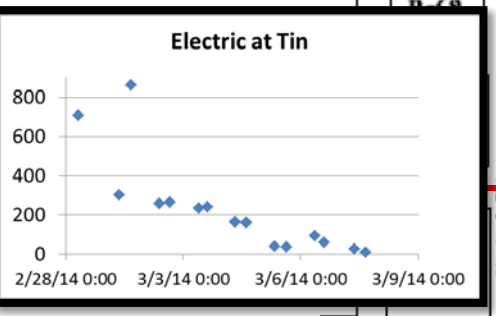
Cooling Towers: CT blowing down and managing the site with total of 200 gpm.

LC results only for phenol in ppm (wt/wt)

Updated with 3/8 AM samples (older data not included)







B300 Pond

3/6 08:56	137
3/7 09:17	136
3/7 16:10	99

B5000 @ removed dam

3/7 15:42 3

403 Canal Pump suction

3/7 08:38 33

403 Basin dirty side

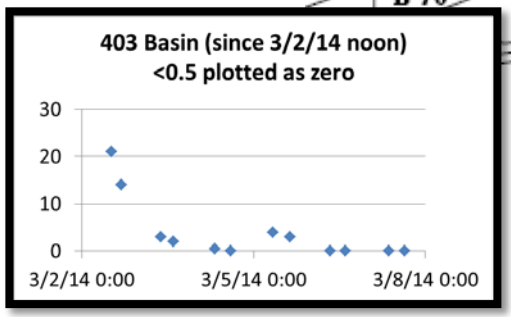
3/8 10:05 21

3610 canal SE B56

3/8 AM 4

003 Canal

3/3 08:30	<0.5
3/3 15:00	<0.5
3/4 07:35	<0.5
3/4 14:28	not detected
3/5 08:20	<0.5
3/5 15:35	<0.5
3/6 08:01	N.D.
3/6 14:18	N.D.
3/7 08:07	N.D.
3/7 14:46	N.D.



B47 B Pond

3/7 08:38	104	
3/8 15:26	100	Pump discharge
3/8 15:32	103	East Side

Contact Bart Neff (b) (6) (b) (6) or Carla Schmidt (b) (6) (b) (6) with questions on this data

3/9/14 11:00 Update: B-1700 Phenol Spill

NOTE: This is the final Operational Update as all site affected systems have returned to normal operations.

Clean Water Pumping:

- All clean water is off.
- All blocks are pumping in normal configuration.

403 Canal:

- The isolation Dam was removed late yesterday, water was confirmed clean, and lift pumps were started.
- Lift pumps are in normal level control operation.

B-17 Hot Zone:

1. Remediation completed in canal.
2. Affected area beneath pipe rack to site ditch is secured (diversion berm to a sump, covered with plastic). Dirt removal began yesterday & will be managed by B-17.
3. Frac tank transfer of the dilute phenol water is complete.

B-23 Sea Water by-pass:

- The pump will remain in place at this location until the slide valve is repaired. Available as needed per normal water make-up demand.

The Dam Team

- All Dams have been removed. Water flows through canals have all returned to normal operation.

Sampling Plan – Grisham/Schmidt:

- No special sampling needed- all plants are managing as per normal operations.

Integration:

- Site is back to normal operations. Contact Raw Material Center for any issues.

Cooling Towers:

- All restrictions related to CT blow-downs were removed last night. Re-communicated to all plants this morning to resume normal operations.

ATTACHMENT H

SITE LOGBOOK

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ALL-WEATHER

JOURNAL

No. 391

Dow Chemical - B1700 Phenol

TO: 1/WESTON-042-14-007

WO: 20406.012.001.0861.01

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Phone

Project TDD 1/WESTON-042-14-007
NRC: 1075337
20406.012.001.0861.01
OSC: Adam Adams
START-3: Thomas Walzer

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CONTENTS

03/01/2014 B1700 Phenol 20406.012.001.0861.01

0530 Arrive Warehouse

0640 Depart Warehouse

Situation as 0800

00:00 → 0200 Friday - Guard noticed phenol odor

6,000 gallons (possibly 6,700 gallons)

31,000,000 gallons in ditch. (in total storage)

800ppm in water

*3 phase plan; treat for release

1. Carbon ~~or Fan~~ or Ion bed T

2. Marianne transfer to barge on Brazos River

3. Pipeline out to treatment

Temporary storage being set up

FREEboard. 3-4 Ft in ditches

DO not Checked. (DO = Dissolved Oxygen)

TCEQ was here yesterday will not be part of ICS.

Priority is not go to river from Dow.

Rain Forecasted for Sunday night.

Cleanup Crew 85 here last night

preparing to pump water - Prepping storage pond.

10 USCG personnel

Thom G. Wafer 03/01/2014

B1700 Phenol 20406.012.001.0861.01 03/01/2014

South side B-1700 unit

403 outfall

Line isolated (69,000 pounds)

403 outfall Shutdown - all condensed in 403 canal Chlorine (seawater)

Shutdown Propyl Glycol Plant, both cut blowdown from Cooling Towers

Ditch - Steve Grisham; Isolation dams 360; Trying Clean out pump basin

So East side of Water shed can be used.

Clean water is being pumped

403 - 3.9 feet 4.2 feet this morning.

1,000 feet of hose - Arrive 78 22 → 2300 hours 03/28

D-3 - Trying to pump out ponds 3+4 to allow transfer to impacted water; working to get clean water out first; Hope to begin pumping dirty water to ponds after lunch.

piping to pump to barges not due for day or 2.

Cumon tank potential Storage.

Hot zone; Full phenol PPE

Recalculation 10,000,000 gallons.

STEER 3 Report estimated <1,000 lbs Emission

Thom Wafer 03/01/2014

03/01/2014 Dow Chemical - B1700 Phenol TAW
2&" Pipeline leaked. TAW
South Levee & Copper Rd TAW
1046 DOAR Ponds; 24-hours to remove
Clean water; Capacity to hold
10,000,000. May hydrotest Former Use TAW
Magnesium 1990's
Phenol - mid. TAW
1500 Briefing TAW
- Estimated 10,000,000 gallons of TAW
water impacted TAW
- Estimated 60,000 pound Phenol Release TAW
from 2" transfer line
- Cooling Towers, recirculating water TAW
rather than discharging to canal TAW
and adding to impacted water TAW
- Removing ~~piping~~ clean water from Dorr TAW
ponds so they can transfer impacted
water to Dorr ponds. TAW
1800 Depart Site TAW
1930 Depart Warehouse TAW

Thomas A. Wyly 03/01/2014

Dow Chemical - B1700 Phenol 03/02/2014
0810 Arrive at Facility TAW
0930 Morning Briefing TAW
B-300 #3 pond 50%; #4 pond empty TAW
Carbon beds being installed, need to TAW
soak to get in service TAW
1000 Updating RM TAW
1300 Coast guard Arrives for 1400 briefing
Continue to be no offsite impacts as
reported by Dow; Plant operations
cut back to keep workers out of
impacted areas and reduce water
production
~~1630 to 1620~~ 03/03/2014 ~~Reported by Dow (Fran Falcon)~~ TAW
~~carbon beds put on hold. Dow looking at~~ TAW
~~stripping to recover phenol, Mark~~ TAW
~~Kuether (Dow EC) identified they are~~ TAW
~~securing hoses to raw thirrd hose~~ TAW
~~to B Pond~~
1700 Depart Site

Thomas A. Wyly 03/02/2014

03/03/2014 Dow Chemical - B1700 Phenol

0815 Talk to OSC Adams. TW

0830 Arrive EOC. TW

0853 Briefing being set up. TW

0900 Briefing restart TW

Site still under control; Not much rain; Survey of depths of Canals; 20 million gallons Slurry Line to pond 4, will get to pond 3 latter today. Will use B4700 CAMU Unit. 403 Clean; non detect at outfall Will install 2-12" liner to CAMU storage; Expect to get Flowing 2000hrs tonight; lined pond Expect to get water dropped beginning to morrow morning Lt Boyde; Immediate Release Welded Pipe Across water being evaluated, Clay liner in B4700 CAMU storage PARKS + Wildlife; concerned about water fowl TW TW TW TW TW TW TW TW TW TW TW TW

1320 Lt Boyd Arrives; Transfer to Pond 3 has not begun; need fittings for hydrostatic testing; pumping to Pond 4 began at 1630

Thomas A. Wagner

Dow Chemical - B1700 Phenol 03/03/2014

02 MARCH 2014 EVENTS TW

B47 - B Pond. (Formerly Referred to CAMU) TW

30,000 gallons/minute TW

1500 Meeting, TW

Dave LEZACK (Pumping Ops) TW

979-848-7331 TW

John DYCHA TW

281-633-6455 TW

1620 Reported By Dow (From Falcon) carbon beds on hold Dow looking at stripping to recover phenol, Mark Kuettel (Dow FC) identified they are obtaining hoses to add third hose to B pond to increase Flow rate TW

1700 Depart Site; Noticed 03/03/2014 Early on wrong date when closing 03/02/2014

Thomas A. Wagner

03/03/2014

V/WESTON-042-14-007 20406.012.001.0861.01

03/04/2014 Dow Chemical-B1700 Phenol

0800 ARRIVE at ~~the~~ Plant

Pumping to Pond #3 began last night

Pumping to Pond B began between 0600 and 0700 this morning.

Pond #3 is a Dorr Pond

Pond B is on B-47

1010 Movin ~~for~~ 7,500 gpm now; 2,500 to Dorr Pond #3; 5,000 gpm to B-47 Pond B.

1500 - Drain plug; 10 → 14 MM gpd.

Estimate; 3 days - Fresh water to Flush.

Will monitor water quality. 2' Clay liner.

Rain guage reads 1500 1.1" Rain, still raining. Apoxy Plant Phenol water stripper.

Hot Wash.

1600 Expanding B-14 dam So pressure

2 - 8" Diesel - 3,500 gpm Each.

Basin < 1 ppm -

Adding PIC Feed to Sludge line pumps

Look at increase of 1,000 gpm

200' Welded Pipe; finish 1345 03/03/2014

added flow at 0600 03/04/2014, 0620 second on line; Found gow (USCG) will Run 2 Pumps.

Thu Q. Wafer 03/04/2014

V/WESTON-042-14-007 20406.012.001.0861.01

03/04/2014 Dow Chemical - B1700 Phenol

Total 1.1 ⇒ 1.3 inches. rainfall

Estimated .0.15 inch projected.

Faith Cotton, ex TCEQ, called.

Good with activity,

Thu Q. Wafer

03/04/2014

03/04/2014 Dow Chemical - B1700 Phenol

11:00 Arrive at site

Transfer to B-47 Pond B;

Pump 3,500gpm - Line 1

Pump 2,800gpm - Line 2 (Vortex)

Working on fixing Line 2 Suction

1400 IC Calls Waker let him know

3rd line B-47 Pond B being added.

1500 Briefing.

B-13 B-15 More pumps for

Transfers

Disc. Pond - 14,000,000 gals, 1,000,000 gal capacity in #1, 1.5 million in #3

B-47 B-Pond 3rd line ready at

2000 hours. Last weld done on

steel crossing; hydro static testing

Soon

Rate of level Drop causing vortexes

B Pond gained 4" in last 4 hours

2 more days to dewater

Conversations in ditch Dropping

They may move pumps

1,400 feet Extra 12" hose Used for

Third line to B Pond

Jim A. Wafer 03/05/2014

Dow Chemical - B1700 Phenol 03/05/2014

1700 PREPARE to Depart

1730 Depart site

Jim A. Wafer 03/04/2014

03/06/2014 Dow Chemical - B1700 Phenol

1130 Arrive at site

Dorr ponds not being pumped to Reserve

B-47 Pond - 2 pumps. South 3525 gpm (0920)

North 3130 gpm (0920)

Pump Pond Rates "B" Pond

		North	South
03/05/2014	2053	2800	3800
		2800	3500
03/06/2014	0920	3130	3525
	1310	2463	Flushing no Reading
	1400	3100	3430

1500 2.6" per hour

Coast Guard will be on site For Startup at Third Line to Pond B

1543 Notify OSC Adams Dow IC Changing To Brad Johnson

0.1549 Maximum in canals 100ppm.

403 basin and 003 outfall now detect

IC Transfer on Saturday

1657 notified excavation began of impacted soils from release point - Possible 1st Flushing to begin tomorrow

1730 Depart Site

Thom A. Wafer 03/06/2014

03/07/2014 Dow Chemical - B1700 Phenol

1130 ARRive at site

Began flushing around 1100

1500 Meeting.

5 diesels running transferring clean water

First Flushing are Reported as about Noon

0700 USCG present to commission 3rd line due to low levels third diesel Shutdown.

2nd Flush From B-17 to push all to 12" Diesels.

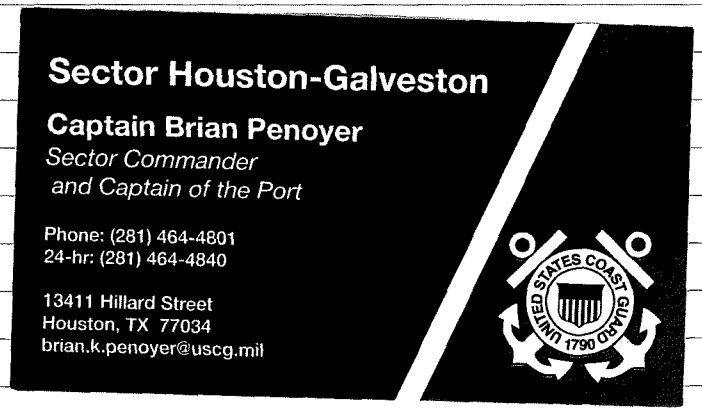
Blocks Flushing as Analytical IDs Higher concentrations

1728 Flushing of side channels reported Excavation of impacted Soils continue. Estimate residue in canals can be flushed to outfall and stay below the 0.5 mg/L discharge permit limit.

1745 Depart site

Thom A. Wafer 03/06/2014

END OF LOGBOOK


Sector Houston-Galveston
Captain Brian Penoyer
Sector Commander
and Captain of the Port
Phone: (281) 464-4801
24-hr: (281) 464-4840
13411 Hillard Street
Houston, TX 77034
brian.k.penoyer@uscg.mil
UNITED STATES COAST GUARD
1790

U.S. Department of Homeland Security
United States Coast Guard

Marine Safety Unit Texas City
3101 FM 2004
Texas City, TX 77591

CDR RICARDO ALONSO
Commanding Officer

Office: 409-978-2701
Cell: 409-682-1259
e-mail: Ricardo.M.Alonso@uscg.mil

U.S. Department of Homeland Security
United States Coast Guard

Marine Safety Unit
Texas City
3101 FM 2004 Rd
Texas City, TX 77591

MSTC KEITH NAKER
Incident Management Division

Phone: 409-978-2766
Cell: 409-682-0241
keith.m.naker@uscg.mil

FAITH COTTON
Emergency Response Coordinator
SWQM/ER

Region 12 ■ Houston

Texas Commission on Environmental Quality
5425 Polk Street, Suite H, Houston, TX 77023
Direct 713/767-3689 ■ Office 713/767-3650
Fax 713/767-3561
faith.cotton@tceq.texas.gov

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"Rite in the Rain®"

DOW

Tel: 979-238-5325
Mobile: 281-750-9952
Fax: 979-238-5685

BRAD JOHNSON
Stratton Ridge Site Leader

The Dow Chemical Company
2301 North Brazosport Blvd., S201
Freeport, TX 77541-3257
USA

jbjohnson@dow.com

WORLDWIDE PARTNER

DOW

Tel: 979.238.9764
Fax: 979.238.0317
Mobile: 979.824.2187

FRAN QUINLAN FALCON
Environmental Leveraged Delivery Leader

The Dow Chemical Company
2301 N. Brazosport Blvd., B-101
Freeport, TX 77541
USA

fqfalcon@dow.com

WORLDWIDE PARTNER

DOW

Tel: 979 238 2853
Mobile: 979 236 1620
Fax: 979 238 0117

JIM LIPSCOMB
Emergency Services and Security Leader
Texas Operations

The Dow Chemical Company
2301 Brazosport Blvd
Building B1210
Freeport, Texas 77541
USA

JTLIPSCOMB@dow.com

WORLDWIDE PARTNER

CM

ATTACHMENT I

TDD NO. 1/WESTON-042-14-007

U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Vendor : WESTON SOLUTIONS, INC.

TDD # : 1/WESTON-042-14-007
Amendment # :
Contract # : EP-W-06-042

TDD Title : DowChemical-B1700Phenol
Purpose : TDD INITIATION

Verbal Date : 02/28/2014
Start Date : 02/28/2014
Completion Date : 07/31/2014
Effective Date : 02/28/2014

Priority : HIGH
Overtime Authorized : Yes
Invoice Unit :

SSID : A6JE
Project/Site Name : DowChemical-B1700Phenol
Project Address : 2301 N Brazosport Blvd
County : Brazoria
City : Freeport
State : TX
Zip Code : 77541

Work Area : Response / Removal
Work Area Code : PJ
Activity : Fund Lead Removal
Activity Code : RV
Operable Unit :
Emergency Code :
FPN :
Performance Based : No

Authorized TDD Ceiling :

	Amount	LOE (Hours)
Previous Action(s) :	$0.00	0.00
This Action :	$16,000.00	0.00
New Total :	$16,000.00	0.00

Specific Elements :

See Schedule

Description of Work :

See Schedule

Region Specific :

CERCLIS:

Misc 2 :

Accounting and Appropriation Information:

SFO:

Line	Budget / FY	Approp. Code	Budget Org.	Program Element	Object Class	Site Project	Cost Org.	DCN Line-ID	Funding Category	TDD Amount
1	14	T	6A00	303DC6	2505	A6JERV00		146ARVC002-001	REMOVAL	$16,000.00

U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

TDD # : 1/WESTON-042-14-007
Amendment # :
Contract # : EP-W-06-042

Vendor : WESTON SOLUTIONS, INC.

Project Officer : Will LaBombard (Signature) (Date)	**Branch Mail Code:** **Phone Number :** 214-665-7199 **Fax Number :**
Contracting Officer Representative : Adam Adams (Signature) (Date)	**Branch Mail Code :** **Phone Number :** 2146652779 **Fax Number :**
Contract Specialist: Cora Stanley (Signature) (Date)	**Branch Mail Code :** **Phone Number :** 214-665-7464 **Fax Number :**
Contracting Officer : Cora Stanley Electronically Signed by Cora Stanley 03/04/2014 (Signature) (Date)	**Branch Mail Code :** **Phone Number :** 214-665-7464 **Fax Number :**
Other Agency Official : (Signature) (Date)	**Branch Mail Code :** **Phone Number :** **Fax Number :**

Specific Elements: Analyze -Data that has been collected.,Collect -Samples ,Document -The removal activities. Prepare a written report.,Support -The removal activities,Advise -The OSC on disposal options and completion of the removal activities.
Description of Work: Budget/Ceiling for this TDD is $16,000.00.

Contractor also shall provide technical support, ICS support (as directed by TM/OSC), website support, and either an AOC report or Emergency Response report (as directed by the OSC). Contractor shall provide mapping support (pdo viewer and hard copies, as directed by OSC). Contractor shall assist with community information, as directed by TM/OSC.